DOCUMENT RESUME

ED 101 657 HE 006 262

TITLE Report of the Committee on Recruitment and Recention of Faculty.
INSTITUTION Harvard Univ., Cambridge, Mass. Faculty of Arts and Sciences.
PUB DATE 1 May 68
NOTE 125p.

EDRS PRICE MF-$0.76 HC-$5.70 PLUS POSTAGE
DESCRIPTORS Educational Finance; *Faculty; Fringe Benefits; *Higher Education; Housing; Policy; Salaries; School Community Relationship; *Teacher Recruitment; *Teacher Salaries; Teacher Welfare; Teaching Benefits; *Universities
IDENTIFIERS *Harvard University

ABSTRACT

This study on the recruitment and retention of faculty members of Harvard University reviews the developments in higher education and the competition for talent, the Harvard community, recruitment and retention of the faculty, compensation of the faculty, and housing and school in Cambridge. Conclusions and recommendations are summarized under five headings: titles, salaries, and benefits; the recruitment process; research appointments; housing and schooling; and educational policy and financial restraints. (MJM)

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PREFACE

Following the announcement of its appointment on April 11, 1967, this Committee held a series of meetings with a number of chairmen of departments. Subsequently all departments were asked to submit detailed reports on their experience with the recruitment and retention of faculty members. The Committee also secured similar information from the heads of centers, institutes, and departments relating to research appointments. It sought as detailed and precise information as could be assembled on every offer, formal or informal, made over the past decade to attract a person to a tenure appointment at Harvard; it also assembled data on the limited number (twenty-four in ten years) who left this faculty to accept an appointment at another educational institution.

The Committee developed a check list of information on salaries, benefits, and practices which it desired to obtain from other leading universities. With the assistance of Dean Ford, arrangements were made to secure these data from ten other universities on a confidential and reciprocal basis. This comparative information shows individual salaries for the ranks of professor and associate professor by age and years since the Ph.D. Such data have never previously been available.

In early December a detailed questionnaire, "The Harvard Environment for Study and Living," was distributed to secure information on housing, schooling, and financial stress of faculty families, offers of appointments elsewhere, and views and attitudes on a range of questions relevant to our work. This questionnaire also yielded a number of thoughtful letters by individual members of the teaching and research staff. Seventy-six per cent of the tenure faculty and 65 per cent of the non-tenure faculty replied to the questionnaire (see Appendix Table I for detail on the replies).

Studies of private and public schooling in the Cambridge area and of the housing market confronting faculty members were arranged for, and a large amount of data dealing with the growth, compensation, appointment procedures, appointment

4

charts, and work load of the Harvard faculty were gathered. The Committee as a whole, or as individuals, explored questions related to its assignment with a number of groups including tenure and non-tenure members of the faculty, graduate students, undergraduates, and administrative officers.

It was early determined, in reply to an inquiry from the Dean, that our assignment was already so broad that it would not be appropriate to include within our purview a detailed study of the problems of teaching fellows. Subsequently a committee of the faculty was appointed, under the chairmanship of Professor Robert L. Wolff, to consider a number of questions relating to the graduate school and to teaching fellows. This Committee has made available to Professor Wolff and his colleagues the tabulated replies to its questionnaire by teaching fellows and other information we have gathered relevant to their assignment.

The Committee is deeply appreciative of the genuine coöperation it has received from individual members of the faculty, department chairmen, the Dean, and the administrative staff of the faculty and the University. At considerable expenditure in time and energy our questions have been answered and our requests for information and opinion have been provided thoughtfully and conscientiously. We are the more grateful since much of the information was necessarily sensitive and personal; our deliberations and this report have sought faithfully and fully to respect the candor and confidence of those supplying us this information.

The Committee has received valuable assistance from Dr. Dean K. Whitla in the preparation and analysis of the questionnaire. It is also grateful to Mr. Wallace McDonald for the preparation of data furnished by other universities, to Dr. Kenneth M. Deitch for work on comparative salaries and benefits, to Mr. Spencer C. MacDonald for a study of Cambridge private and public schools, and to Miss Verna C. Johnson for an analysis and tabulation of the appointment charts. Dr. Humphrey Doermann has served as executive secretary to the Committee, filling our almost endless requests for information. The Committee has assembled a large body of information related to the characteristics, compensation, and environment of the faculty. We have sought to interpret these data in the light of the opinions, views, and aspirations communicated to us in varying ways.

At the outset the Committee determined that it was not its assignment to develop a statement of the total financial needs of the Faculty of Arts and Sciences. The needs of the faculty and the opportunities for fruitful new expenditures are very large, and they are regularly conveyed to the President and governing boards. The Committee is keenly aware of the need for a continuing increase in the Harvard salary scale at all ranks. But the Committee recognizes that it must formulate its recommendations within the constraints of such resources as are or may be available. We are required to assign priorities and thereby to relegate some meritorious proposals to an inferior position. Compelled to concentrate on measures and procedures for improving the faculty's effectiveness, we have had to be rigorously selective in defining those areas which, in our opinion, most urgently require attention.

Although the problems of faculty recruitment and retention considered by this Committee are in some respects distinctive to Harvard, the present report concerns issues which to a greater or a lesser degree also confront most of the colleges and universities of America. We hope, therefore, that the way in which we define and approach these issues may be of some general interest.

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May 1, 1968

CONTENTS

I	Introduction	1
II	Developments in Higher Education and the Competition for Talent	8
III	The Harvard Community	20
IV	The Recruitment and Retention of the Harvard Faculty	31
V	The Compensation of the Harvard Faculty	52
VI	Housing and Schooling in Cambridge	78
VII	Conclusions and Recommendations	94
	Appendix Tables	107

7

Chapter I

INTRODUCTION

The Committee's Assignment

At the faculty meeting of April 11, 1967, President Pusey announced the appointment of this "special committee to consider problems involved in the recruitment and retention of professional staff in the Faculty of Arts and Sciences." Mr. Pusey said that he and Dean Ford wished the Committee to make "a dispassionate study of what will be required to keep the University's central faculty strong and keep it advancing."

The mandate to this Committee could scarcely be broader. Few developments within Harvard University, in Cambridge, or even in the life of the country at large do not in some way affect the capacity and performance of this faculty in "the recruitment and retention of professional staff." The letters of appointment to the Committee, however, contained two paragraphs providing more specific terms of reference:

> The need to review terms, titles, and conditions of academic appointment is clearly implied by the very act of establishing this committee. Many of our rules affecting such matters appear to have stood well the tests of time and experience. Others, framed in other days and circumstances, may be sufficiently out of tune with the contemporary background to require modification. Obviously, the Corporation would have to weigh any suggestions for change against considerations of costs, equity throughout the rest of the University, and administrative feasibility. However, it now seems timely to mobilize the best Faculty opinion and to consider carefully whatever recommendations may be forthcoming.
>
> There are several matters which will probably also concern you and your colleagues, including the difficult question of allocation of the Faculty's resources as between senior and junior appointments. Another such problem (of tactical *necessity* versus fairness across the board) is posed by differences among the several departments in terms of their needs and the external "market conditions" they face.

Still another is suggested by the new titles and functions which have appeared with the proliferation of research centers and other affiliated institutions. We face the need to make as much sense as we can out of the increasing heterogeneity of our community, without losing all sense of structure in the ordering of designations, privileges, and compensation.

While the Committee's instructions leave it unfettered in its examination of problem areas and in its search for useful initiatives and proposals, in the end it is essential to select a few critical areas and to establish priorities in making recommendations. The Committee has followed such a procedure. We have explored a wide range of factors which have been thought by members of the faculty to influence the recruitment and retention of the faculty; we have assembled a large body of data on the experience and views of this faculty and of other universities, but we have sought in our conclusions and recommendations to identify the issues and proposals of the greatest priority and urgency.

Preceding Committees

In the past thirty years four committees have considered some of the issues examined here. Their findings appeared as: *Report on Some Problems in the Faculty of Arts and Sciences*, March 25, 1939, generally referred to as the Committee of Eight report; *The Economic Status of the Faculty of Arts and Sciences*, September 1, 1950, generally referred to as the Greene report; and the parallel *Report of the Committee on Compensation*, February 10, 1956, and the *Committee on Appointments, Promotions, and Retirements*, March 14, 1956, often referred to as the Bundy reports.

The 1939 Committee of Eight report still provides the basic statement on "questions of policy and procedure relating to tenure, promotion, and general status of the younger teaching members of the Faculty of Arts and Sciences." There have, of course, been significant increases in salary from the 1939 scale of the $2,500 proposed for instructors (with a Ph.D. degree) and a salary range of $8,000 to $12,000 for the rank of professor. But the main outlines of the policies advanced by the Committee of Eight remain intact despite significant changes in many of its premises.

The 1939 report proceeded on the explicit assumption that

the total budget of the faculty was assumed to be "fixed for the predictable future" and that the size of the faculty would reflect this financial picture (p. iv). In fact, the number of professors and associate professors increased from 175 in 1939–40 to 227 in 1951–52 and 330 in 1966–67 (see Appendix Table II). The number of graduate students also rose from 1338 in 1938–39 to 1815 in 1951–52 and 3030 in 1966–67. Clearly the faculty has had to confront complex issues of growth in appointments and graduate students not envisaged by the report.

The Committee of Eight expressed a concern that the personnel of the faculty should reflect not only the advancement of learning but interests, issues, and controversies vital to the contemporary world. The report admonished the University and its several departments to "make a conscious effort to offset the natural tendency to academic isolation and the narrow perpetuation of its own internal tradition" (p. v.). Today a little more academic isolation might be welcome. In his report to the Board of Overseers for 1966–67 President Pusey observed: "Today the trumpeting outside is so strongly for action that cloistered learning has become almost something to be depreciated. This mood is now having a strong effect on universities."

The Committee of Eight report dealt with the problems of younger teachers at Harvard in a day when there were few jobs elsewhere, Harvard salaries at non-tenure ranks were above scales at other universities, and the task was to develop rules to move young teachers up or out. The situation is quite different today. The Harvard salary of $7,800 for an instructor (with a Ph.D. degree) in most departments is well below starting rates in many first-rate universities. Recruitment of young teachers from outside is often a problem. The Committee of Eight envisaged that one out of two faculty instructors (assistant professors) could look forward to tenure at Harvard (p. 20). The present figure is more like one out of five or six (see Appendix Table IX). Even the average age of tenure appointments has changed from thirty-nine in 1939 to thirty-five in recent years.

The Greene report of 1950 "was not authorized to, and did not, develop explicit recommendations." That committee made a comprehensive study of the economic status of the faculty and found that "Prior to the war Harvard salaries in the instructor, assistant professor, and associate professor ranks were clearly at the top of those in major American universities. In the fol-

lowing decade leadership at these levels was lost, until Harvard salaries for instructors and assistant professors ranked no better than the middle of a group of eleven univerities in 1948–49" (p. 178). In the fall of 1950 the Harvard salary scale for instructors was raised from $3,500 to $4,000, for assistant professors there was an increase from $4,500 to $5,000, and the starting salary for associate professors was increased from $5,000 to $5,500. The professorial rank remained at the $9,000 to $15,000 range. The report concluded that "the general salary scale at Harvard must be substantially increased during the next decade" (p. 184).

The 1956 *Report of the Committee on Compensation* recommended changes in compensation and fringe benefits. It proposed a wholly non-contributory retirement plan with Harvard paying the 5 per cent of salary which had previously been paid by the faculty member. The effect of this change, subsequently adopted, was a 5 per cent salary increase in addition to tax advantages. The recommendation of comprehensive medical insurance, protection against permanent disability, and the extension of the University health service to faculty members was adopted. Faculty Club dues were abolished. But the recommendation for tuition scholarships for faculty children was not accepted by the University.

Priority Issues

Our Committee has identified five major groups of issues significant to the recruitment and retention of the faculty. The strength and vitality of the faculty, and the whole University, in the years ahead may well turn on the response to these complex problems. The conclusions and recommendations of this report are summarized in its final chapter under the same five headings.

1. *Titles, Salaries, and Benefits.* Almost alone among major universities, Harvard retains the rank of instructor for the young scholar and teacher who has completed the Ph.D. degree or its equivalent; elsewhere that title has been dropped, as in fact it has in many departments here. Some of our departments use the rank of instructor only for young scholars who have completed their degrees here, thereby creating possible discord with those hired from other institutions with the same qualifications but with the rank of assistant professor. The capacity of the fac-

ulty to recruit promising young scholars and teachers is affected, in some departments much more than others, by the present ranks and salary scales.

The Harvard salary scales have traditionally been administered to provide more homogeneous salaries among fields and among professors at the same age than at other leading universities. The Committee of Eight in 1939 recommended that "the University adhere to its traditional principle of uniformity within each rank. This principle restricts the University's bargaining capacity in particular instances; but it protects the Harvard community from the grievances which arise so easily when individuals are favored" (p. 27). This policy was easier to maintain in a day when Harvard's average salary lead over other universities was larger than it is today. The rapid expansion of higher education and new centers of first-rate quality have developed additional strains. The problem is less one of super-grades and the "star system" at the top of the salary scale than the rate of salary advance for a much sought-after younger scholar in the face of strong bids from competitors.

II. *The Recruitment Process.* In the highly competitive academic market the question arises whether the search and recruitment process for faculty can be improved. The procedures for such search and recruitment vary widely within departments, as do the vigor and skill with which they are pursued. The *ad hoc* committee has been a distinctive feature of Harvard recruitment. Any report directed to the problems of the recruitment of the faculty cannot ignore the process itself.

III. *Research Appointments.* Research appointments have grown more rapidly than any other rank in the faculty. These appointments, under such titles as Research Fellow and Research Associate, have increased from 181 to 541 in the period since 1951–52, and while concentrated in the natural sciences they have also developed in other areas (see Appendix Table III). The educational, research, and financial consequences of this expansion may need review. In some departments these research scholars compete for the scarce time of senior professors; but they also participate in departmental research programs and in the teaching of undergraduates and graduate students. The contributions and claims of such appointments, including demands on limited space, have not been carefully considered by some departments.

IV. *Housing and Schooling.* The Boston metropolitan area, and the Cambridge community particularly, might reasonably be expected to be a factor in the recruitment and retention of the Harvard faculty. The significance of this environment for our assignment is not easy to assess. It is interesting to note that the Committee of Eight report in 1939 observed: "The unsatisfactory housing and schooling conditions in Cambridge now tempt young teachers with relatively small salaries either to live elsewhere or to add to their incomes by doing outside work which interferes with their scholarly pursuits. The Committee believes that there should in the near future be a comprehensive exploration of both of these problems" (p. xxiii). Our Committee is of the view that the opportunities and the problems of the decade ahead call for a new and more constructive relationship between Harvard and the Cambridge community.

V. *Educational Policy and Financial Constraints.* The procedures within the faculty to consider the allocation of limited resources within departments and among departments has been of major concern to this Committee. The Graustein formula was designed in the spirit of the Committee of Eight report so that it would provide a fixed division of regularly spaced appointments among departments. But tenure appointments have more than doubled in the past thirty years. Insistent questions arise as to whether the allocation of these appointments or funds and the size and distribution of the graduate student body conform to long-run faculty objectives and priorities. There is doubt and concern, reinforced by budget deficits in the faculty, whether departments are making optimal use of resources and whether they have carefully considered the alternatives of course rotation, shifts among types of appointments, concentration upon fewer specialties at the graduate level, and other devices to focus on priority objectives. Far too frequently educational policy and financial means have been treated as isolated questions. The data and the procedures to consider such decisions more rationally in the faculty constitute a central range of issues relevant to our assignment and affecting the future of this faculty.

The role of these five groups of issues in influencing the recruitment and retention of the Harvard faculty needs always to be kept in perspective. The quality of the present students, the distinction and promise of the faculty, the traditions of free

inquiry, the intellectual climate, the richness of libraries and other scholarly resources, and the large number of first-rank scholars in many fields in the Cambridge and Greater Boston area are among our principal assets in recruitment. Successful recruitment and academic distinction are closely interrelated. While this report addresses itself to the organization and rules of the faculty, it needs always to be borne in mind that the attraction of superior and stimulating students, effective teaching, significant research, scholarly leadership, and pioneering intellectual and educational developments are prime requisites for the recruitment and retention of the next generation of this faculty. These areas are even more vital than the questions of rank, salary, procedures, and organization of the faculty which are our assigned concern.

Chapter II

DEVELOPMENTS IN HIGHER EDUCATION AND THE COMPETITION FOR TALENT

To understand the problems that all universities face in the recruitment and retention of faculty we must examine certain general developments in higher education which have contributed to the intensification of competition for the available pool of academic talent. The first factor to be noted is the recent explosive growth of enrollments in higher educational institutions. Between 1954 and 1964 enrollments in all institutions of higher education more than doubled, from slightly less than 2½ million to nearly 5 million. By 1966 the 6 million mark was passed, and conservative estimates project an increase to more than 9 million by 1975. While these figures point to a slackening in the rate of growth over the next decade, reflecting a declining birth rate in the age groups which will be moving into the universities, they nevertheless spell a continuing increase in the overall demand for faculty in the period immediately ahead.

A second factor which needs to be taken into account is that the supply of highly qualified faculty has lagged behind increases in enrollments. The number of doctorates awarded grew from 8,840 in 1954–55 to 15,300 in 1964–65, an increase of approximately 73 per cent, compared with a doubling of enrollment in higher educational institutions during the same period. Projections by the Office of Education (HEW) indicate that full-time instructional staff in colleges and universities will increase from 302,000 in 1965–66 to 444,000 in 1974–75 and that professional staff employed full-time in organized research will increase during the same period from 56,000 to 101,000. The same agency estimates that 260,000 doctorates will be conferred in the period between 1964–65 and 1974–75. Of these an undetermined but probably substantial and growing percentage will find employment in government, business, or research-oriented activities

outside the universities. The remainder will presumably make their careers in higher educational institutions. Assuming a replacement rate of 5 per cent a year, approximately half of these will be needed for replacement purposes; the rest will be available to provide for new enrollment. While there is general agreement that there is a serious shortage of highly qualified faculty at the present time, there is also a widespread tendency to assume that, unless enrollments increase far more sharply than is presently anticipated, the supply of Ph.D.'s will begin to catch up with the demand by the mid-seventies, if not before. As might be expected, there are likely to be significant variations by subject and fields. If present trends in enrollment persist, mathematics and statistics undergraduate degrees will triple by 1974–75 and lead all natural sciences and related professional fields. Physical sciences and biological science degrees are expected to double, and such fields as English and journalism, foreign languages, psychology, the social sciences, and social work are expected to more than double. These projections spill over into a similar pattern of graduate-school enrollments and serve to emphasize the areas where the demand for faculty is likely to be particularly acute.

A third significant development in American higher education is the extent to which burgeoning enrollments are being channeled into public rather than private educational institutions. As recently as 1950 the two sectors had almost equal enrollments. By 1965 the balance was almost two to one in favor of the public sector; by the end of the next decade as many as eight out of ten students will probably be enrolled in public institutions. One of the accompaniments of this changing balance has been a dramatic growth in the strength of major state universities — measured not merely by the size of their student bodies and budgets, but also by the quality of their faculties, their research facilities, and their improved drawing power. The University of California with a 1965–66 enrollment of 73,677 and annual expenditures of $425 million (of which state support provided $208 million) plans by 1975–76 to increase its enrollment to 140,000 and its expenditure level to over a billion dollars. The State University of New York, which expanded from 47,634 students in 1960 to 139,149 in 1967–68, plans to enroll 290,400 students by 1975. During the past six years it has spent $1 billion for construction; for the year 1968–

69 Governor Rockefeller has recommended a state allocation of $323.1 million for operations, an increase of $42.9 million over 1967–68. To staff its planned expansion it must recruit some 3,100 full professors by 1975. Nor are California and New York unique. The drive to extend public higher educational facilities has been taking place on a nation-wide basis.

Faced with problems of expansion and the need to recruit faculties rapidly and on a large scale, public higher educational institutions have operated under compelling pressure to improve their bargaining position in the competition for academic talent. State and city universities and colleges have made substantial progress in raising their academic salary scales. While the average 1966–67 annual compensation (including fringe benefits) of full professors in private universities was still higher than in public universities ($19,700 compared with $16,300), a general leveling trend was manifest. As the AAUP Bulletin of June 1967 noted (p. 137), "Rates of increase were greatest among the types of college or university in which average compensations are currently lowest." Between 1964–65 and 1966–67 professorial compensation in private universities increased at an average rate of 12.1 per cent; the corresponding figure in the public universities was 15.2 per cent. Should these rates of increase be maintained for each of the institutional groups, average professorial salaries in public universities would catch up with their private counterparts in about a decade.

Whether they will in fact do so will depend on whether the resources will be available to finance the desired increases. The tremendous expansion of public higher education in recent years poses its own financial problems and educational dilemmas. As costs skyrocket, many state universities encounter serious taxpayer resistance and find it increasingly difficult to count on state legislatures to meet their needs. Most state schools have sharply raised their tuition fees, though they still remain low compared with private institutions. All are increasingly looking to the federal government for more help, and many have taken a leaf out of the book of the private universities by launching drives for alumni and corporate support. At the same time, the public institutions face all of the problems incident to a period of rapid expansion. They find themselves inundated by students whom they are not fully prepared to handle. They are subject to many demands for services to the government and the public to which

they feel they must respond. As states multiply their higher educational units to take care of mounting enrollments and funds must be shared between established and new institutions, there is an ever-present threat that resources may be spread too thin and that the result may be a general leveling and dilution of quality.

Meanwhile, private universities confront their own increasingly serious financial problems. In some cases — the University of Pittsburgh and the University of Buffalo are examples — private institutions have been forced into affiliation with state systems in order to extricate themselves from their financial difficulties. Many major institutions — Yale, Princeton, and Cornell among them — have recently reported significant operating deficits. Even as conservatively managed an institution as Harvard operates in a milieu of increasing financial stringency where rapidly rising operating costs threaten to outrun current sources of income.

Over the twelve year span between 1951–52 and 1963–64 the annual expenditures of private institutions increased from less than half a billion to over 1.5 billion dollars. A substantial part of this increase — some 494 million dollars — was accounted for by federally financed research, which grew at a rate of 15.5 per cent per year. The remaining increase was directly attributable to rising instructional costs, which mounted at a rate of 8.8 per cent per year and constituted a direct charge on the resources of the universities.

The explanation for this pattern of soaring costs reaches out in many directions. In the major graduate institutions instructional costs have tended to rise even more steeply, because of the high costs of graduate instruction. Some recent calculations at the University of Chicago indicate that educational costs per graduate student, exclusive of capital costs and organized research expenditures, averaged $4,000 to $5,000 in the humanities and social sciences, nearly $10,000 in the physical sciences, and over $13,000 in the biological and medical sciences. The increased obligations assumed by major institutions of higher learning in broadening the range of their research, instructional, and public-service responsibilities have contributed to the rising spiral. With the emergence of new fields of learning, curricula expand, new appointments are made, and new research programs are established. Merely to mention such fields as high-energy and plasma physics, molecular biology, non-Western and inter-

national studies, economic development, and urban studies may serve as a reminder that such new ventures involve costly new commitments in terms of additional appointments and the laboratory and other research facilities required for their support. The broadening in the range of university interests moves hand in hand with soaring library and computer costs. The sharpened demand for faculty is reflected in an average 5 per cent annual increase in salary levels since the end of World War II. At the same time the costs of administration, of plant operation and maintenance, of materials and equipment have also undergone a sharp rise. If present trends continue, the instructional costs of a typical major university may be expected at least to double and perhaps nearly triple over the next decade.

Meanwhile, what has been happening to the income side of the account books of the private universities? The sharp increase in federal support over the 1952–1964 period was referred to earlier; by fiscal 1964 federal funds accounted for nearly half of the income of private universities. It should, however, also be noted that many of the federal programs involved incremental costs for the universities, and that the growth rate for federal research and development expenditures which averaged 15.5–15.6 per cent per year through fiscal 1966 declined to 8 per cent in fiscal 1967 and will probably drop below 7 per cent in fiscal 1968. This decline may well have damaging effects, both on the universities and on the national interest. If the economy is to continue to grow, research and development expenditures also need to increase rapidly, probably about 15 per cent a year. Unless such a rate of increase can be maintained, the capacity of leading universities to create the new fields of knowledge necessary to sustain economic growth will be seriously impaired.

Since 1958 tuition fees, which lagged behind increases in student costs in the early post World War II years, have increased slightly faster than the index of educational costs (a little over 8 per cent per year compared to the cost index of 7½ per cent), but such fees ordinarily cover only a small fraction of the instructional costs involved, particularly in the graduate area. While endowment income at all private universities increased at an average annual rate of 6.8 per cent between 1952 and 1964, this source of income has suffered a substantial drop in relative

importance, even when federal funds are excluded from calculation (Harvard is an exception). Whether the recent decision of the Ford Foundation to curtail its expenditures foreshadows a general decline of foundation support for higher education remains to be seen. Most private universities rely increasingly on current gifts and annual fund raising to meet part of their increasing costs. Data available for nineteen of the larger private colleges and universities reveal an increase from an annual total of about 50 million dollars in the mid-1950's to over 300 million in the mid-1960's. Increasingly private universities are dependent on "soft" money to meet their needs and perform their functions.

What the future holds in store for the private universities hinges on many factors — the importance of the services which they perform for society, the degree to which such services are valued by their supporting clientele and the community, the economic conditions which prevail in the years ahead, and the competing demands of society against which the needs of the private universities will be measured. Predictions with respect to such matters must allow for a high margin of error. Nevertheless, there appear to be some propositions on which there is fairly widespread agreement in educational circles. First, while it is generally assumed that tuition fees will continue to rise, it appears extremely doubtful that the rate of increase in the years ahead will be as rapid as it was during the last decade. The desire of private universities to continue to attract students from all socio-economic levels and the relatively low level of tuition fees in public universities are likely to militate against too wide a gap between the fee structure of private and public institutions. Second, there is a prevailing assumption (which may be belied by future events) that both endowment income and private giving will grow less rapidly over the next ten years than they did during the previous decade. Third, it is widely assumed that private higher educational systems face increasingly serious financial problems unless the deficits which loom ahead are absorbed by one or another form of public, and more particularly federal, financing. Finally, fears are frequently expressed that unless federal support is forthcoming in adequate amounts, private universities will be forced to cut back on their commitments and will find it increasingly difficult to maintain

past standards of quality, launch new ventures, and provide the kind of creative and innovative leadership which has been their historic contribution to American higher learning.

The increasing dependence of all higher educational institutions on federal funding has been made dramatically manifest in recent years. For the fiscal year ending June 30, 1962, federal support for higher education totaled slightly less than a billion dollars. By fiscal 1966 it mounted to more than 3 billion. In fiscal 1967 approximately 1.5 billion dollars of federal funds for research and development were assigned to higher educational institutions; another 0.6 billion was channeled to research centers associated with educational institutions. Of this total an overwhelming percentage went to the natural sciences. An additional 1.15 billion was made available for student housing, classrooms, laboratories, and other facilities; 370 million for graduate fellowships, traineeships, and training grants; a total of a little more than a billion for student loans, G.I. benefits, and other forms of student aid; and, finally, some 57 million for institutional grants to universities. Clearly federal funding now plays a critically important role in supporting graduate and post-graduate instruction for increasing numbers of scientists and engineers, and it is growingly important in some areas of the social sciences. The best estimates available for fiscal 1967 indicate that approximately 38,000 research assistants received support from federal fellowship and training programs, and that nearly a quarter of all doctoral candidates are currently dependent on federal funds to support their training.

Federal aid has made it possible for most universities to undertake new programs and provide new services which could not otherwise be funded, but it has yet to address itself squarely to the problem of meeting the spiraling instructional cost of higher education. Many proposals have been advanced to fill this need. They include the expansion of existing and the launching of new forms of assistance for programs of special needs, provisions for larger institutional grants and cost of education grants at the graduate level, a broader scholarship and loan program at the undergraduate level, and proposals for federally financed contingent repayment plans under which college graduates able to do so would repay the full costs of their college education, through the income tax mechanism.

The expanding role of the federal government in the financing

of higher education also poses difficult issues in arriving at equitable formulas for the allocation of aid to educational institutions. Given the nature of the American political system, there is strong pressure to equalize the distribution of aid among geographical regions and to build up new "centers of excellence" in areas which do not presently possess them. While the case for developing these new centers is persuasive, the public interest would not be served if it were done at the expense of weakening the established major universities. Given the understandable drive toward wider dispersion of funds, farsighted policy would appear to dictate combining the building of new "centers of excellence" with the preservation of quality institutions where they have already been established.

The general trends which have been summarized above — the explosive growth of higher education in recent years, the rapid development of new, frequently interdisciplinary fields of scholarship, the mounting demand for qualified faculty, the sharp improvement in the level of support for public higher educational institutions, the deteriorating financial prospects of many private universities, and the increasing dependence of all higher educational institutions on federal support — represent the broad framework of educational changes within which Harvard will have to define its future role. But they tell us little about the specific problems which Harvard faces in its efforts to attract and retain an outstanding faculty.

Clearly Harvard and other institutions like it already operate and are likely to continue to operate in an increasingly competitive environment. The pool of outstanding scholars and young Ph.D.'s giving promise of great distinction is relatively small and in great demand. Nor is a solution to be found by looking abroad for relief. The recruitment of distinguished foreign scholars which played such an important role in strengthening American universities in the period between the two World Wars and the immediate post World War II period can no longer be depended on significantly to replenish the pool. The economic recovery of Europe, the improved status of the European academic profession, the opening of many new universities and the establishment of numerous new chairs, have made calls from American universities less appealing.

As leading American universities struggle to preserve their quality and new aspirants to eminence join the contest, the bid-

ding for talent and the "raiding" of sister institutions sometimes border on the frenetic. Institutions vie with each other in developing attractive "packages" of benefits to lure both the prestigious scholar and the promising. The ingenious variety of these special arrangements suggests no lack of entrepreneurial talent in university circles. Able young scholars who have just completed their Ph.D.'s in fields of high demand may look forward to multiple offers of assistant professorships at leading institutions at salaries ranging from $9,000 to $12,000, or even more, with guarantees of substantial additional stipends for summer research or teaching. Not infrequently, especially in the natural and social sciences, such offers are coupled with half-time research arrangements and the assurance of rapid promotion to a tenure post in the event of successful performance. In some cases, but not as often as legend has it, the competition for distinguished scholars takes the form of offers of "star" treatment — high out-of-scale salaries, minimal teaching loads, large research support and facilities, and other favorable fringe benefits. More frequently prevalent practice sanctions a modified form of the "star" system, in which scholars who are in great demand are rapidly advanced to the top of the scale applicable to their rank, given accelerated promotion, and offered other inducements in the form of reduced teaching loads, special research support, and other benefits.

Here, however, differentiations need to be made by field and subject matter. In the humanities special arrangements involving reduced teaching loads and free research time tend to be rarer than in other sectors of learning, and average salaries are ordinarily lower at comparable career points except in fields where scarcities of qualified personnel are acute. While the "star" system is not unknown, less use is made of it, a development which may reflect more intense pressure in other disciplines. In general research funds are limited and adequate library resources are of the essence, a factor which operates to make universities with outstanding libraries especially attractive to scholars in these fields.

The social sciences occupy a position midway between the humanities and the natural sciences. While available funds are small compared with those at the disposal of the natural sciences, they have been growing rapidly and are far larger than in the humanities. As the flow of research funds has increased, joint

teaching and research arrangements have become more common and highly valued. With the narrowing of salary differentials among leading universities, the competition for social scientists tends to place increasing stress on the availability of research support and opportunities for supplementary income. Where the scholar in the humanities is likely to confine his extra-university activities to occasional outside lecturing and to concentrate his energies primarily on university teaching, scholarship, and occasionally the writing of textbooks, an increasing number of social scientists combine their university duties with extensive outside involvement. Not infrequently they move back and forth from the universities to government service as part of their normal career patterns, and they often serve as advisers or consultants to business, government, or quasi-public organizations.

For scientists too, in certain areas, industrial consultantships provide a recognized and lucrative source of supplementary income, and advisorial relationships to government scientific agencies and service on government scientific panels constitute a customary and almost routine form of outside activity. But most important of all is the availability of research support and facilities, and universities which are in a position to provide such support find themselves in the most favorable bargaining positions. In prestigious frontier fields universities often compete by offering variants of special treatment. Because of the nature of scientific activity in some fields, and their requirements in the way of a critical mass of scientists and expensive equipment, universities which propose to establish a position in such fields must be prepared to make a large-scale commitment. They must bid not merely for the services of an individual scientist but for his whole supporting entourage, and must be ready to make the appointments and provide the costly facilities which will make teamwork possible.

The developments which have been summarized above pose issues of faculty recruitment for which no ready panaceas are available. To begin with, there is by no means universal agreement on the future magnitude of the problem. There are some who argue that the pattern of fierce competition and sharp upward adjustment in faculty salaries which has prevailed in recent years is likely to abate as public institutions meet increasing resistance from legislatures in their requests for new

funds and as private institutions enter a period of increasing financial stringency. Those who take this view also point out that the output of new Ph.D.'s will begin to catch up with the demand in the early and mid-seventies and that this too will contribute to the easing of the competitive pressure. There are others who minimize the significance of an increased flow of Ph.D.'s in resolving the recruiting problems of the major universities. They contend that the competition for the best new talent will remain severe, and that the quantity of outstanding scholars will still fall short of demand, as an increasing number of outstanding universities bid for their services. They anticipate that public support for higher education will continue to grow rapidly, that the allocation of public funds and research contracts on the basis of geographic criteria will serve to build up many new "centers of excellence," and that stronger and better financed public institutions in particular will provide increasingly stiff competition for the established major private universities, even if the latter share increasingly in federal aid.

If the second prognosis turns out to be correct there will be persisting pressure to bid up the salaries of outstanding scholars and to equalize salary scales among an increasing number of competing universities. As salaries rise, salary itself may become less important than such fringe benefits as research facilities and leaves, retirement programs, medical schemes, housing provisions, and programs of assistance for the education of faculty children. For universities located in crowded urban centers the availability of adequate housing and schooling is likely to loom as more and more important.

The competitive position of a university depends not only on the resources which it commands but also on how it marshals and deploys them. Since Harvard has traditionally eschewed the "star" system and relied on a relatively homogeneous structure of compensation at every rank and level, it already finds itself at a disadvantage when it is compelled to compete with specially attractive offers which some other institutions are prepared to make in their search for top talent. If Harvard is to remain competitive in the face of such efforts it will be under increasing pressure both to improve its existing salary scales and fringe benefits and to provide for more flexible administration of them. This is not meant to imply that Harvard should match every bid or expect to obtain acceptances from every scholar

invited to join its faculty. No university can hope to have a monopoly of the nation's talents, nor would it be in the national interest for any university to achieve such a concentration. What is important, so far as Harvard is concerned, is that it remain in a position to attract outstanding scholars and that its recruitment policies promote this objective.

How then should Harvard define its role and responsibilities in such a milieu of intensifying competition for talent? Given the multiplicity and diversity of the scholarly universe no university can hope to fill every nook and cranny of the world of learning, nor should it attempt to do so. Harvard, like other universities, has a heritage of scholarly obligations which it must preserve and strengthen. At the same time its commitment to traditional programs must not be allowed to stand in the way of new ventures which advance the frontiers of science and address themselves to the pressing problems of the society of which it is a part. It must be selective in choosing these ventures, and, we hope, wise enough to concentrate its resources on those which are likely to have enduring rather than transitory significance. It cannot do everything, and it would waste and dilute its substance if it tried. The challenge which it faces is to do supremely well what it believes needs doing and to find the scholars who will carry out the task. The greatness of a university is measured not by the number of its courses nor by the size of its faculty or student body but by its continuing capacity to attract students of high quality, outstanding scholars, and original and creative minds. If Harvard is to receive the public support which it will need increasingly in the years ahead, it will earn such support by setting a standard of excellence and achievement in the domains of science and learning which represent its strengths.

Chapter III

THE HARVARD COMMUNITY

The changes that have altered American academic life in the past decade have had a marked impact upon the Harvard Faculty of Arts and Sciences. The faculty has not suffered more than has that at other universities; indeed there are grounds for the judgment that it has suffered less. But such comparisons do not tell the whole story. For a half-century Harvard was believed by many to occupy a unique position in the American system of higher education; and that position no longer seems as secure as it once did.

The assumption of that uniqueness supplied the premises of the report of the Committee of Eight and was basic to the tenure policies that grew out of it. It was assumed that in most cases scholars of any rank would respond to a call to this faculty and once appointed would spend the whole of their careers in it; that teachers without tenure would remain at Harvard as long as their terms permitted, would accept promotion if proffered, and if let go would return when recalled. The assumption was, in other words, that Harvard stood at the apex of the academic profession and could guide its recruitment policies by the logic of its preëminent position.

Perhaps these premises never were as valid as they seemed from the Cambridge perspective. But the recruitment record of the recent past certainly reveals a change in the degree of their validity, a change connected with alterations within the Harvard community. The distinctive environment for study and teaching that community once provided its members was the most powerful attraction in drawing and holding a distinguished faculty. The transformation of their environment, already in progress twenty years ago, substantially weakened the force of its attraction.

At the opening of the twentieth century Harvard had not

yet fully outgrown its nineteenth-century character. It still bore signs of its past as a small, Massachusetts-oriented institution, dedicated to purposes which were clearly related to its Puritan origins. But President Eliot had taken it a long way toward modern university status. Under his administration the scope of the faculty's interest had broadened; it had been freed of a heavy burden of routine tasks and allowed by the elective system to teach at a level compatible with creative scholarship. Eliot's personality and the resources that he commanded helped the University earn international prestige.

President Lowell forcefully pushed the tendencies initiated under Eliot. Central to Lowell's administration was the determined effort to create a university college, one that would combine elite undergraduate instruction with a level of scholarship of the very highest order, that is — it was sometimes said — joining the English and the German university goals. Harvard consciously rejected two contemporary alternatives, that of Clark and Johns Hopkins which separated the research-oriented university from the college and also that of the liberal arts colleges which put scholarship secondary to undergraduate teaching.

University policy since Lowell's administration has kept his objectives clearly in view. The house system, departmental concentration, general education, and tutorial instruction strengthened the college. On the other hand, the creation of the Society of Fellows, the development of the graduate school, and the construction of libraries and laboratories showed the determination of the University to remain in the first rank of research institutions.

These decisions involved some growth through the first half of the twentieth century. The number of graduate and undergraduate students under the Faculty of Arts and Sciences rose between 1900 and 1950 from 2,723 to 6,857 while the size of the permanent faculty went up from less than one hundred to more than two hundred. At the same time the number of non-tenure posts increased. Most of that growth came in the first three decades of the century; during the depression and the war a leveling off was accepted as desirable by members of the faculty, some of whom felt, in any case, overburdened by comparison with their colleagues in comparable institutions.

To what extent the decisions to expand or not were deliberate

and planned is unclear, for they were made informally and *ad hoc*, although within the framework of widely shared beliefs about the nature of the University. Agreement was possible in these matters because the faculty was small enough and coherent enough to sustain a sense of communal solidarity which had existed at the beginning of the century and still survived in 1950.

In 1900 Harvard formed a world of its own. No tenured member of the Faculty of Arts and Sciences lived more than three-quarters of a mile away from Harvard Square, with the densest clusters of residence lying around the immediate periphery of the Yard along Quincy and Kirkland Streets, Francis Avenue, Gorham, Hammond, Wendell, and Oxford Streets. The middle-class shopkeepers and artisans who made up the bulk of the Cambridge population separated faculty residences from the slums of Boston with their attendant social problems and high tax rates. The professors could use the cultural amenities of Boston, but their children could attend local public schools and their families were shielded from contact with the "dangerous classes" of the city center.

The University community operated within a little world of its own, the members of which were linked by numerous subtle but powerful social and intellectual ties. These ties extended to the students who were then still free to drop in at homes of professors and, across the student generations, to the alumni and governing boards whose loyalty was a strong support.

There were drawbacks in this closed environment. Powerful individuals occasionally dominated whole fields and some departments suffered from perennial family feuds. But two among the values affirmed in the community were particularly important in establishing its solidarity, for both diverged from the prevailing norms of American society as a whole. The first was commitment to intellectual freedom. The members of the faculty had complete confidence in each other and the successive presidents had confidence in them. At a time when academic freedom rested upon quite insecure bases almost everywhere else in the country it was a source of pride and a stimulus to morale to know that the integrity of scholarship and the ability to espouse unpopular causes were absolutely secure at Harvard.

The other eccentric value was a rejection of the market mentality that infused almost every aspect of American life. To be sure, under Eliot the scorn for materialism sometimes was

justification for abysmally low salaries. "Asceticism and devotion were required of the teachers of youth, and it mattered little," a critic pointed out, "if they were prescribed by poverty instead of being elective." Yet Eliot's insistence that the academic profession "called for altruistic conceptions of life and duty" long made sense to the faculty. Its members, in choosing a career of scholarship, had rejected more remunerative alternatives and expected to make sacrifices in following their calling. Guided by a curious amalgam of monastic and gentlemanly ideals, they took pride in their detachment from monetary values; and in the minds of many of them that detachment was associated with their independence.

There are members of this Committee who can recall former colleagues who bore all the expenses of research, travel, and secretarial costs out of their own funds, who considered it beneath their dignity, as late as the 1940's, to apply for a foundation grant, and who took it as a matter of course that they would contribute to, rather than draw upon, University resources. The attitude of some former professors to their students would now be considered paternalistic; they made loans, provided makework jobs, and contributed to the support of research and publication. The percentage of professors with outside income was about the same in 1900 as in 1950 or 1968, although the sources of those incomes have changed; but attitudes toward money have changed even more.

These references to the values of the past are not intended as a plea for their emulation. But they must be understood if Harvard's novel recruitment problem is to be comprehensible. Down until the recent past the tenure members of the faculty did not consider themselves employees of the University doing a job for a salary. They were members of a community which assisted them in doing the work they wished to do.

Hence there was a time when salary was almost irrelevant to the problem of recruitment. Eliot often spoke with satisfaction of the number of professors offered higher posts with greater financial rewards who refused to leave because of "the perfect freedom of opinion and the deep respect of the community they enjoyed." While such attitudes prevailed, the University did not have to bid against competitors either to hold or to attract its professors.

The situation has changed in recent decades, in part at least

because the community has changed. Harvard has remained committed to the objectives of the university-college as in the past. The report of the Committee on General Education (1945), for instance, fixed on the need for balance between the forces of the college and of the graduate school as the central element in the organization of undergraduate instruction. The effort to sustain the dual set of responsibilities, however, involved heavier burdens than had earlier been the case. After the post-war bulge the size of the undergraduate student body remained fairly constant, but the number of graduate students increased substantially. Furthermore, in some departments the proportion who passed beyond the first year to complete the doctorate also rose, with a consequent heavy demand on the time for individual instruction. That the loads were unequally distributed among individuals and departments was not as important as the total increase in pressure. Yet the community was not really prepared to deal with the post-war situation.

No doubt the increase in the size of the tenured teaching faculty alone accounted for some of the change. The transition from 99 in 1900 to 240 in 1951 to 360 in 1966 necessarily reduced the frequency and intimacy of contacts among the members of the faculty. As the course offerings expanded and became increasingly specialized, the areas of shared instructional or research responsibilities narrowed; it was symptomatic that the divisions which once organized sections of the faculty larger than the departments lost their function and disappeared.

Members of the faculty without tenure seem always to have suffered from a sense of isolation. But when the community was whole and smaller, close personal contact with senior professors in some instances eased the resentment of being "out of it." In any case, the anxieties the Committee of Eight discovered were those connected with the desire for tenure and with the eagerness to remain in Cambridge as long as possible. In the past two decades the non-tenure staff has increased in size and, at the same time, is less likely than formerly to remain in Cambridge its full term. The result has been the appearance of a sizeable transient teaching population that never becomes integrated in the community.

Moreover, much of this growth was unplanned. The specter of declining resources, raised by the depression of the 1930's, remained threatening well into the 1950's. It is difficult to recall

in retrospect that there was fear of contraction in the years just after the war. The market for college graduates, it was then argued, was not likely to grow and, indeed, there were suspicions that the University might be moving into a period in which the unemployed intellectuals might constitute a problem as they had in Germany in the 1920's.

As a result there was no whole view, after the war, of the shape of the expanding faculty and of the impact on it of new responsibilities. It is significant that the faculty discussed the size of the college but not its own size or that of the graduate school, perhaps because the latter was not equally a burden to all professors.

For a time, in the 1930's, the house system had counteracted the tendency toward isolation derived from the expansion of the University. In their first two decades the houses provided a setting for relationships that crossed departmental and rank lines. But it is probably fair to say that the crowding of the senior common rooms after 1950 diluted the effectiveness of the houses as a means of establishing and maintaining faculty solidarity.

In addition, changes within Cambridge and outside it weakened the capacity of the community to meet the problems created by expansion. The changes within Cambridge were already well advanced in the years between the wars, although the University then attempted to remain aloof from them. They were the consequences of a reshuffling of population that sent to more remote suburbs the middle-class elements that once insulated the Harvard area from the depressed districts of Lechmere and from Boston. The places thus left vacant were taken by industry and by working-class families from Charlestown and Boston.

Town–gown resentments and conflicts had rarely been troublesome before the first world war. Thereafter they acquired an intensity that affected the Harvard community in several important respects. Political control passed to elements hostile to the University and municipal costs rose. The public schools suffered. Whether because of the reluctance to mingle with the town children or because of a belief in the educational superiority of the private schools, faculty families grew increasingly hesitant to send their children to the public schools.

Cambridge, therefore, lost some of its attractiveness as a place

in which to live just when the automobile and new highways were opening up the western suburbs. The depression of the 1930's which lowered real-estate values in Cambridge limited the outward drift until the end of the war. But the trend toward dispersal of residences away from the Harvard area that was to become prominent after 1950 was already noticeable before 1940. Moreover, after the war, the movement into Cambridge of well-to-do people unconnected with the University substantially raised the costs of desirable single-family houses. At the same time the expansion of M.I.T., the appearance of new research centers, and the growth in the size of the faculty intensified the competition for such housing.

Improved relationships in recent years between the University and the municipality have not reversed the trend away from residence in Cambridge. The designation of an Assistant to the President for Civic and Governmental Relations and the activity of various departments of the University in education, health, and planning have opened valuable lines of communication with the city. Reform of the municipal government and improvement of the public schools have removed some of the older sources of discontent. But these efforts have not yet produced the conditions that can be counted on to draw faculty families back from the suburbs.

Certainly a larger faculty spread through the metropolitan region was less likely to maintain its sense of solidarity than earlier. Its members had always been heterogeneous in background and character, but they had formerly shared values and tastes interior to the community and preserved by some degree of isolation from outside contacts. To the extent that some of the faculty drifted away and to the extent that wealthy "outsiders" moved into Cambridge, the prospect of preserving a common style of life and a common set of values diminished.

A changed relationship to the outer world also broke into the isolation of the University. The first world war created a precedent for service to the government by members of the faculty. The role of consultant and occasional administrator has broadened rapidly since then, with industry and the foundations as well as government the beneficiaries. Moreover, the airplane has removed the limitations of distance that formerly restricted the range of travel. In the 1930's members of the faculty left Cambridge in term time only under the most unusual

circumstances; a trip to Chicago then consumed a week. Now a morning flight brings the professor to Los Angeles in time for lunch; and he need not miss a class the next day if he takes the "Red Eye" overnight flight back. The boundaries of his world are altogether different from those of his predecessors, and so are his relationships to the University community. His loyalties are no longer narrowly focused on the Yard; and often he can very well conceive that his work could go forward from some other base than Harvard.

One result of the altered perspective has been a shift in values that has brought the University into line with standards prevailing in other sectors of American society. The availability of funds from government and the foundations encouraged the trend toward setting a monetary equivalent for all the fractions of the faculty member's time — for research as well as for teaching and for administration. The subtle change in the view of the stipend — from a means of enabling the professor to do what he in any case wished to do, to a salary for doing a job — was scarcely noticed. But its ultimate result was to bring him unwittingly into the market place as a seller of his services. That role has begun to influence the meaning of membership in the University community.

Forces operating entirely within the realm of scholarship have also diluted the sense of identification with the University. Professionalization and specialization have proceeded so far in many disciplines that the effective lines of communication run not within any single institution but among colleagues working upon common problems in many different places. Often the meaningful research problems are phrased in terms so technical that they can fully be understood not by the members of a whole faculty or even of a whole department but only by the specialists scattered wherever they might be. Achievements and goals are recognized by the standards of such specialized groups rather than by those of the University.

The transformation of the community within which it operates certainly has affected the University's recruitment problems. Harvard can no longer assume that it is exempt from the competitive rules that apply to other institutions. Other universities can match, and in occasional instances top, Harvard salaries. Moreover, some of the assets of this community are no longer unique. It is fortunate for the nation and for scholarship

that academic freedom can now be taken for granted in many other places as it could not be formerly. So too, the airplane, microfilm, office copiers, and the computer have eliminated the disadvantages once built into positions at isolated or new institutions. Technological advance and freedom are equalizing forces that further undermine the assumption of Harvard's distinctiveness and therefore threaten to weaken the ties between the individual and the community. Meanwhile, the proliferation of new institutions throughout the country and the sheer growth in the number of teachers and researchers enormously complicates the task of identifying talented young scholars at the stage of their careers when moves are relatively easy.

Harvard is far from being a multiversity even in 1968, and few modern institutions command as thoroughly the loyalty of their members. Few Harvard professors have thus far resigned; but a number now state that they would be tempted by higher salaries. The transformation of the community has injected elements of impersonality that were absent until recently.

The effects of these changes have been limited, but they now threaten the University's ability to deal with the general problems that confront all American institutions of higher education. Abstractly speaking, Harvard could buttress its competitive position by limiting the growth in size of the faculty and thus strengthen the cohesiveness of the community and support its existing commitments to teaching and research. It made an analogous decision when it refused radically to expand the number of undergraduates. But the same option is not open when it comes to the size of the faculty. In the face of the knowledge explosion of recent decades such a decision would freeze the existing allocation of resources and prevent the University from developing new subjects important both to its students and to the world of scholarship.

Furthermore, the pressures toward expansion operate within the traditional disciplines as well as in the new fields of learning. There is still an important role for the individual scholar. But modern techniques of scholarship call for increasing specialization, for expensive equipment, and for a high degree of teamwork; and the inability or unwillingness to respond to the challenge of these conditions would damage every branch of the faculty, not simply those on the frontiers of knowledge.

One illustration, from an old, well-established, and large de-

partment will illustrate the gravity of the challenge to expand. The Department of History, pressed to look beyond the traditional European and American fields, investigated the possibility of launching first-rate programs in other areas. The distinguished scholars consulted advised that it would take ten appointments to get such programs going. And it was not a case of finding the expedients to do with less, for the kind of scholars the department wished to attract were already working with such groups elsewhere and would not wish to come without assurances of comparable support. Yet expansion on this scale not only was beyond the resources of the department and the faculty but would have upset the existing balance of teaching responsibilities. Such instances could be multiplied in every branch of learning.

The expansion of the past two decades has been desirable, however painful its side effects upon the community. And probably growth will continue in the future. It is unlikely that anyone wishes to stand still, much less to turn back to the position of 1950 or 1900. Instead, accepting the premise of some growth, it is necessary to provide for it in an orderly fashion. That calls for two tasks: decisions about expansion should be made in the light of their effect upon the whole community; and the University must either discover an equivalent for the old sense of community or cope with the situation created by its absence.

In the past there were no precise institutional arrangements for decisions regarding expansion of the faculty or the allocation of its resources. In a small community, in which the Dean, the President, and the governing boards were intimately familiar with the faculty, there were great advantages to the concentration of power and responsibility in a few hands. More elaborate procedures may be needed in the future.

A colleague, responding to the Committee's questionnaire, compared Harvard's Cambridge with England's. "My nostalgia is not for the superb intellectual standards or the ancient and beautiful buildings; as much as for the opportunity to walk out of my lab and in a few minutes to be walking through green fields along a quiet river, or punting on the river." No doubt many others, and particularly those who recall a smaller, quieter Cambridge on this side of the ocean, feel a similar sense of nostalgia.

There is no turning the clock back, even were that altogether desirable. It is unlikely that the University can restore the communal solidarity that once held all its members together. But it is appropriate to ask whether it lies within its power to make Cambridge a more attractive setting for life as well as for work. The University could improve the physical environment around it by making available a greater range of choices of homes, schools, and amenities than now exist. By providing a milieu encouraging to the development of a variety of sub-communities it could widen the options for involvement open to the faculty. And it could help to generate a sense of common intellectual interest that might transcend the differences among its members.

Such possibilities are open, although they may run counter to powerful contrary forces in American society. The conscious effort is worth making, for if the ties of the individual to the University are weakened further, the costs of competing in the open market for the services of a faculty of quality may be far higher than can now be reckoned.

Chapter IV

THE RECRUITMENT AND RETENTION OF THE HARVARD FACULTY

Since the recent experience of the faculty in recruitment and retention has been the subject of much conjecture, this Committee has tried to ascertain the facts by putting the following questions to a wide segment of the teaching faculty and the administrative officers of the University:

> What has been the record of Harvard's attempt to recruit faculty and what has been the record of faculty members leaving Harvard for other academic institutions?
>
> What can be said in appraisal of the process both within departments and within the faculty, including the *ad hoc* committees, to recruit senior personnel?
>
> What has been the experience among fields?
>
> How do the present procedures work at different ranks or categories of appointments in the faculty?
>
> What can be said about the factors that have led people to accept Harvard appointments or to reject them? What does an examination of individual situations over the past decade reveal? What are our strengths and weaknesses?

Working through a series of long interviews, through extensive correspondence with the chairmen of departments, through the questionnaire, and through the minutes of all *ad hoc* committees between 1955–56 and 1966–67, we assembled such a big and complex mass of information that in one sense it seemed to prove nothing but the ancient Harvard tradition of bewildering variety. For example, the chairmen's letters — which ranged from a document of almost twenty pages to a note of three brief paragraphs — were markedly unlike. Representing a wide spectrum of attitudes from complacency to dismay, from fatigue to activism, from reformist zeal to resignation, they baffled easy

classification, as did the often contradictory opinions expressed in interviews and the answers to the questionnaire. Such diversity was to be expected, not only because these data inevitably had a personal coloration but also because they reflected the wants and needs of some thirty departments, each with its traditions, vested interests, and conflicts of personalities and procedures. Despite such variety and complexity and even parochialism, however, certain patterns did emerge and certain motifs did recur. If the data did not readily yield a set of common problems for which the Committee could devise a set of uniform solutions, at any rate they served our purpose well: they enabled us to define certain areas of disaffection and concern throughout the faculty, and they significantly influenced our recommendations.

What follows is an effort to suggest both diversity and pattern in the data we assembled, and thus to provide a fair sampling of faculty opinion. In the interests of clarity and precision we have divided our presentation of this material as follows:

i. Humanities and Social Sciences
ii. Natural Sciences (including the Division of Engineering and Applied Physics)
iii. Research Appointments
iv. The *Ad Hoc* Committee System

i. *Humanities and Social Sciences*

Since the record shows that in the last decade the humanities and social sciences have made 86 offers that were rejected as opposed to 117 that resulted in appointments, it would seem that almost every sector of the faculty has had some difficulty in recruiting senior personnel. Although the hard-pressed chairman who described his recent experience in filling — or in not filling — a "prestigious" chair as "one of cumulative and interminable frustration" was more vehement than his fellows, most of them would know what he was speaking of. For example, the effort to replace an eminent scholar who had died untimely led the two departments who had shared his services through five successive "tentative approaches" before submitting to an *ad hoc* committee a slate of three presumably available candidates. After one of these had been disqualified and the other two declined their invitations, the search began anew. Con-

fronted by a similar problem, another department successfully squired three candidates through three *ad hoc* committees — a wearing process, as every chairman knows — before succeeding with the fourth. Another department, having made five firm offers of a distinguished chair, was hopeful that the sixth would be accepted. Another, plagued with many retirements and replacements, made an astonishing total of twenty-four offers in ten years, of which sixteen were unsuccessful. Another scored four acceptances to six rejections, another three to five, another sixteen to ten (of which, however, only two had gone to an *ad hoc* committee), another four to six. In such a context it is pleasant to record perfect records for two departments, one with four briskly made appointments and the other with five (not counting the rejection of one "informal" offer).

The chairmen reporting these statistics came equipped with various explanations, surprisingly few of which concerned the salary scale at Harvard. To be sure, we learned of one man for whom financial considerations had been "crucial" and of several others who had jockeyed Harvard's invitation into implausible advances or star-professorships back home, but these instances of academic enterprise did not stir the slightest inclination — on the part of the Committee or its witnesses — to meet such competition with a star-system of its own devising. For one thing, our university professorships, though sparingly bestowed, permit a degree of administrative flexibility in dealing with persons of exceptional distinction; for another, our losses in senior personnel have in most instances been paired off with our gains, whereby we got (or kept) the man we wanted despite financial disadvantages. Thus one professor came here at a "less generous" salary (and with vastly more administrative chores) because he valued our prestige; three senior members of one department turned down better offers elsewhere because of Harvard's "aura"; another of our colleagues, having rejected two university professorships and a formidable super-professorship at rival institutions, was asked by yet another suitor if there were "any terms" on which he might be lured away. "I told him there were none," he reported to his chairman — and significantly, according to the questionnaire, a substantial majority of the senior faculty concur in this opinion.[1] In short, the

[1] In answer to the question, "What aspects of offers might be strong enough

comment by one fairly recent addition to the faculty may be cited to exemplify a very common theme:

> The most important factors that led me to accept a Harvard appointment . . . were first, Harvard's traditional over-all excellence as a university; second, the very high density in the Cambridge area of topnotch people, in all fields of learning; third, the high quality of Harvard students; and fourth, the relative absence of constraints on faculty freedom as compared with other universities. The Harvard salary scale is an important factor, but is no longer decisive because men of the calibre we are after are almost always paid well above the average at other universities.

The evidence permits — indeed, almost compels — the inference that in an overwhelming majority of rejected invitations salary was not the main consideration. This is not to say that money is of no concern to scholars, but that money in the form of salary is apparently less important in recruiting and retaining senior personnel than some of us had thought. Housing and schooling (which will be treated in Chapter VI) are presumably of more concern to a man pondering a move to Cambridge, and so are the basic but elusive problems of an established scholar who wonders how to sever old connections, uproot his family, and make a new beginning in a strange and sometimes harsh environment.

This last consideration was painfully apparent in dozens of unsuccessful efforts to transplant distinguished Europeans, most of whom explained, with disarming candor, that they liked it where they were. The fact that one department reported nine such misadventures, another five, another three, another two, and several one or more perhaps confirms a chairman's wry comment about the mounting disinclination of "refugee scholars" to endure the "physical unattractiveness of Cambridge as a community these days"; or perhaps it suggests that the pull of one's own country and language and culture is too potent to

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to attract you to another university?" the senior faculty, in all departments, expressed its views as follows (given in percentages):

50.2	not	by	higher salaries
90.2	"	"	tenure appointments
77.4	"	"	reduced teaching loads
74.2	"	"	special facilities
89.6	"	"	name chairs
70.1	"	"	a chance for a fresh start
68.3	"	"	other attractions

resist. In any event, one depressing case-history invites speculation: an eminent professor of a provincial English university, having responded warmly to initial inquiries, visited Harvard and made it clear that he was ready for a formal offer, whereupon he was tendered an appointment that he at once accepted. Almost before the deed was done, however, he asked to be relieved of the commitment, citing personal and domestic reasons for his rapid change of mind. The administration of course complied with his request, but "we know now," his former chairman said, "that he was expecting an Oxford (or Cambridge) appointment: there he will be in 1967–68."

Although most scholars, foreign or domestic, who rejected Harvard's invitation did so with more candor, it is hard to list their reasons in order of importance. Perhaps some random examples — not concerned with the cost of real estate or education — will be instructive at this point. One man was unwilling to leave a well-cushioned berth at a major university for a job here with much more teaching and less time off for his research (but, the chairman reporting this decision added, "I never heard money mentioned" as a factor in the case). A number of rejections, in various departments, were based on disapproval of an untidy conjunction of areas within a single field of knowledge, or aversion to a dictatorial former chairman, or fear that Harvard showed "malaise" in its handling of a certain subject; moreover, a number of rejections, in two other departments, were attributed by the chairmen to what one of them called "an internal and regrettable matter of disagreement among ourselves" and the other "an unfortunate series of personal antipathies."

In most instances, however, it would seem that those declining Harvard's invitation did not love Harvard less, they merely loved their present institutions more. And usually for good reason, for these institutions, challenged by a Harvard offer, almost invariably fostered such devotion with the promise of reduced teaching loads and inflated salaries that Harvard could not match without abandoning the principle of relative egalitarianism within the various ranks. Thus it was that four candidates of one department, having expressed lively interest in a formal invitation, rejected such an invitation when it came because they found a peace back home that they had never known before; that an eminent scholar refused first a professorship and

then a university professorship at Harvard because of old attachments elsewhere; that our refusal to accommodate the academic aspirations of one candidate's wife was "decisive" in his rejection of our offer; that another man, on reflection, resolved to stay where he was as the director of an institute that he himself had founded. Although some chairmen expressed chagrin and even anger at such failures, it would seem that in almost every instance Harvard would have had to buy its victory with concessions, including star-professorships, that the Committee would deplore.

With the exception of only one letter (from a man who himself has twice declined university professorships elsewhere), our evidence does not support the notion that Harvard's losses in senior personnel are to be regarded as symptoms of decay. There have been such losses, to be sure, and some of them severe, but whereas they inevitably become a topic for discussion, our successes in withstanding raids have been so frequent and indeed routine that they do not attract attention. Even if one chairman's assertion that "everyone under fifty-five receives occasional feelers" would perhaps not hold for all departments, the reports throughout the letters of scores of unsuccessful raids are buttressed by the questionnaire, which shows that in the last two years almost 60 per cent of our tenure personnel have rejected formal invitations from other institutions. Although we heard of one or two resignations prompted by pique or disaffection — for example, that of an associate professor impatient with his tempo of promotion — most of those who left did so for reasons casting no discredit on the University: one professor resigned to become director of perhaps the most prestigious research institute in the world, another to accept a chair that his own alma mater had established to commemorate his father's long career, and several others (nearing mandatory retirement) to prolong their terms of active service at other universities, and so on.

It should be added that a few of our losses may be laid to personal or domestic difficulties, which even our inquisitive Committee was reluctant to explore. Suffice it to say that such resignations were beyond our competence to explain or the administration's to prevent.

Turning to the problem of the non-tenure personnel, we meet a different and a very complex situation, for which this

Committee thinks that prompt remedial action is required. If, as we have seen, our evidence about the tenure faculty shows no startling discrepancies or contradictions, that relating to the junior staff reveals the widest variations. Thus we were told that one department "for the first time in its memory" was encountering "serious difficulty" in hiring and retaining junior personnel, whereas another (closely allied with the first) had not met the slightest problem in getting anyone it wanted, either from its own graduates or from other institutions.

Such polarities, embracing many topics, were apparent through almost all the chairmen's letters. From one we learned that "as for non-tenure appointments, we have had no trouble at all in finding good people to fill our openings," and from another that "generally it has been extremely difficult to attract staff on the junior level." The comment that "we have no trouble in recruiting junior staff, either from among our own Ph.D.'s or from elsewhere" was juxtaposed to another chairman's fears of mounting perils in staffing on that level. One department in which the Ph.D. is exceptionally prolonged (owing to the travel and research involved) reported not only that it often lost its most eligible doctoral candidates to other institutions which do not insist on the degree, but also that it failed to attract new Ph.D.'s from elsewhere because of its well-known reluctance to promote junior personnel (only one of whom, in fifteen years, had risen to a tenure rank). Although another reported little difficulty in appointing its own Ph.D.'s despite our low beginning salary for instructors, "it is only good luck which permits us to hire occasional people of equal calibre from other institutions." A third had managed to escape the problem, it was admitted, by not even going after Ph.D.'s from other institutions. In one large department it appears to be routine for all junior members to split their time between teaching and research, but in several others (particularly in the humanities) the teaching load, traditionally very heavy, increases year by year with mounting enrollment and expanded tutorial programs. Referring to this situation, one chairman (not in the humanities) remarked that although a uniform relationship between teaching and research in all academic departments was probably not to be attained, it was "clearly" up to the Committee to deal with such bizarre discrepancies by writing "guide lines" for the University.

Although other chairmen mentioned other things with varying degrees of acerbity — for instance, the actual length of service in the lower ranks under the present system, the saddling of non-tenure personnel with administrative chores, the assistant professor's dim prospect of promotion, the inequity of opportunity for additional summer salary for scientists and for men in the humanities, etc. — two big themes emerged more clearly: 1) that in the light of present competition for new Ph.D.'s the Harvard instructorship has been rendered obsolete; and 2) that our salary scale for non-tenure personnel is sadly out of line with that of other institutions. One chairman, speaking with notable restraint about his problems in recruiting non-tenure personnel, explained that "the salary rate of young instructors has proved to be not particularly attractive," but his counterparts were mainly more assertive. One of them may stand as spokesman for the rest:

> We have been able to make very little use of the rank of instructor in recent years. Our own best graduate students are regularly offered assistant professorships elsewhere at $9,000 or more even before completing their degrees. The best students from other good departments are also usually so well placed by the time their degrees are in hand that we cannot plausibly offer them our anomalous instructorship.

Thus the chairmen on their own administrative problems; but we also heard the comments, most of them unflattering, from a group of six assistant professors whom we asked to meet and share their views with us. Somewhat to our surprise, most of these young men (representing six departments) were not particularly concerned about the housing situation or by schooling for their children or about the Harvard salary scale, but they were virtually unanimous in protesting the "alienation" of the junior personnel. In their opinion, the distance between the upper and the lower levels — as symbolized by the exclusion of the younger men from discussions of curriculum and of staffing at the junior level, by their social isolation, and by their lack of such civilities or necessities as stationery, telephones, laboratory supplies, and secretarial assistance — was the most painful aspect of their life at Harvard. (It should be added that the tenure faculty in some departments often also yearns in vain for the very same civilities and necessities whose absence these

young men deplored.) They agreed, moreover, that the structure of titles should be revised, and the instructorship abolished.

ii. *Natural Sciences*

The natural sciences have also had difficulties in making appointments. We summarize broadly by presenting the following data with the warning that there is no uniform record: the fluctuations from one department to another may be the more significant information. But for what it is worth we find, integrating all accounts in this area over the past decade, 27 offers to men already at Harvard in one capacity or another accepted, 27 offers to men at other universities or laboratories accepted, and 50 offers (formal or informal) to men at other places refused. The latter figure is no doubt a lower limit, since it is unlikely that all informal contacts were reported. There seems to be no record of a refusal by men already at Harvard, even though there was no lack of competition for them.

For the present, therefore, we conclude one thing more surely than anything else: once a man is settled and reasonably successful, it is hard to move him either to or away from Harvard. The more senior and successful he is, the more sure is this conclusion. Thus there is a really great premium on the early recognition of talent together with the establishment of a system which makes it attractive for young men of promise to stay at Harvard during the full period of their development. The technique of going out and recruiting a senior person to fill a specific need has become an arduous and often unrewarding procedure. In special cases it still works, and should not be abandoned in principle, but to depend on it as an exclusive mode of recruitment is folly.

As in other fields, the great attractions at Harvard were clearly indicated to be the quality of colleagues, the rather exceptional quality of student, both graduate and undergraduate, the prestige of the University, and the intellectual interests and activities of the entire Cambridge and suburban community.

In the recruitment of candidates involving competition at the senior level, Harvard's salary offers are below and often far below competing offers. A not untypical quotation is as follows: "However, Professor ——— declined the offer made to him after ——— gave him a very large salary increase and freed him from any formal obligations to teach. . . . Since that [the

counter offer] was at least $6000 over our most senior professor's salary at the time, we were overwhelmed." And further on: "It is extremely awkward, even embarrassing, to approach a man when you are offering a smaller salary than he is presently making." All of this is not to say that on the average Harvard's salaries for scientists are not competitive, but to point out why it is so awkward to try to fill vacancies in the staff with established people whom everyone knows to be outstanding. Conversely, the high average salaries and the fair treatment of the whole faculty are important factors in the Harvard faculty's loyalty and stability.

Another quotation summarized these financial data and introduces yet another matter: outside sources of income.

> At the tenure level, despite Harvard's high average salaries, we are not financially competitive for the people of the quality and reputation we are seeking. On the other hand, our existing strength and the quality of our graduate students have on the whole enabled us to attract and retain people against substantial financial sacrifices, made up in part by the unusually attractive consulting opportunities in the Cambridge area — attractive not only from the financial standpoint but even more from the standpoint of intellectual challenge and variety.

The latter part of the quotation refers to opportunities which are important to some but by no means all of the scientific faculty at Harvard.

Housing, schooling and subsidies for education are no doubt as important to scientists as to others, but they received very little specific attention in the chairmen's reports.

An important question for scientists is related to the availability of laboratories, research funds, and support facilities such as computers, shops, etc. Conditions vary from field to field, but on the whole space conditions and facilities have been good at Harvard. It is said that we have recently been slipping behind, that many competing universities offer more attractive laboratories, better facilities, and more aid in getting research funds from foundations and the government. The Program for Science in Harvard College has been set up to alleviate this situation. There seems little more that can be done now other than to work for the success of that program. Certainly an effort should be made in Washington to insure that if there is a drive toward

establishing new centers of excellence in science it is not done at the expense of starving the successful centers now in existence. It should be recognized here that this threat exists, and that if it materializes Harvard's position in the sciences will fall sharply.

On the question of junior staff the reports indicated not only a variety of results in recruiting but an equally diverse set of policies. In one department there had been no promotions to tenure, in others almost all tenure positions had been filled by promotions. Most departments find it difficult if not impossible to recruit non-tenure staff from outside Harvard as instructors, and this rank has therefore largely been abandoned. But for some internal and occasional outside appointments, especially those split between teaching and research, the rank of instructor is still used successfully in some departments. In such cases it is clear to the department and to the appointee that the appointment is at most for three years, and is to be regarded in some sense as a post-doctoral fellowship. The Benjamin Pierce Instructorships in mathematics, which appear to be relatively easy to staff, constitute a unique situation. But it seems likely that here again the position is regarded as a prestigious training ground by the appointees.

As in the case of tenure staff, the attractiveness of a Harvard appointment to a young assistant professor in the sciences is associated more with the quality of the faculty and students with whom he works than with anything else. Salaries and chances of promotion are generally not quite so good as in the best competing institutions. A quotation from one chairman's report explains the situation clearly.

> I feel that both the junior ranks are relatively unattractive. The inflation of the assistant professor rank has also resulted in premature forcing of the tenure question. Our basic dilemma is that the intellectual standards we set for an assistant professor are higher than those now set even in universities with which we are competing, but the salaries and working conditions are not better, if as good. People, particularly Harvard Ph.D.'s, recognize that a Harvard Assistant Professorship is a very good jumping-off place for other positions, and so we are still able to compete fairly well in those areas where we already have a substantial senior staff. The advantages of being at Harvard outweigh the financial disadvantages in such areas. But we find it almost impossible to launch a new area, where the prospective appointee doesn't see the attraction of work-

ing with senior colleagues of national reputation in his particular area of interest.

iii. *Research Appointments*

University records show that the first Corporation appointment of a post-doctoral Research Fellow was in 1916–17 on a Sachs Fellowship in Fine Arts. Although such appointments were made annually between the wars, the numbers remained small. Some fellowships, like those sponsored by the National Research Council, were national in scope; others were awarded locally with private and foundation support.

After 1945 not only did the financing of the fellowships in the natural sciences shift gradually to federal agencies but the character of the appointments changed with the spreading use of research project grants and contracts to finance research by individual faculty members. Such persons select their own staff as post-doctoral research assistants whose compensation is in salary rather than in fellowship stipends but who none the less are recommended by the departments for Corporation appointments as Research Fellows.

Concerned with the anomalous status of a growing number of Research Fellows in the Harvard community, the Corporation ruled in 1949 that normally the tenure of such appointments would be limited to three years, although in "special cases" it could be extended to eight years for men under thirty-five. More recently, in 1964, the Corporation specified three titles for such research appointments: Research Fellows, who are usually more or less equivalent in age and academic seniority to junior members of the instructional staff; Research Associates, who are more nearly equivalent in status to senior members of the faculty; and Senior Research Associates. Whereas the first two ranks are appointed for a maximum of eight years, the third is "without limit of time" — the phrase indicating, as the Corporation specified, the presumption of continuing employment but not academic tenure.

The number of research appointees has been growing very rapidly, from 181 in 1951–52 to 541 in 1966–67 (in the Faculty of Arts and Sciences and in related budget centers). Of the total in 1966–67, 345 were in the natural science departments, 9 in social science departments, and 8 in humanities. An additional 96 were in various research centers concerned with social sci-

ences, 80 in those concerned with natural sciences, and 3 in those concerned with the humanities. The rank of Senior Research Associate has been used sparingly; in 1966–67 there were only 9 such appointees, of whom 5 were at the Cambridge Electron Accelerator. The number of Research Associates that year was 116 (see Appendix Table III).

These figures, including all those who held Corporation appointments during a twelve-month period, may overstate by as much as 25 to 30 per cent the number active at any given time. Both in absolute numbers and in the ratio of research appointees to tenure faculty, Harvard is second in the group of eleven institutions for which statistical information is available. M.I.T. is first, with about twice as high a ratio and nearly twice the number, whereas the numbers for Columbia (the third ranked institution on the list) are about half those for Harvard. With the exception of Cornell, the largest fraction of research appointees in all institutions is in the natural sciences.

From many thoughtful responses of departmental chairmen and directors of various research-centered activities, the Committee reached these conclusions:

1) The average tenure of Research Fellows and Associates is quite short, averaging two or three years. The restriction of tenure to no more than eight years presents no real problem.

2) None of the organizational units that have significant numbers of research appointees expects further rapid growth in the number of such appointments. On the contrary, the shortage of federal funds for research, especially in the physical sciences, suggests the probability of significant shrinkage in some areas.

3) The overwhelming majority of Research Fellows (and of Honorary Research Fellows) associate themselves closely with some particular member of the faculty, even when they have independent stipends.

4) To a notable extent the post-doctoral research assistants become integral parts of research groups, in which capacity they both assist the faculty in the research guidance of graduate students and also carry on their own investigations.

5) Except for a few reservations in one case, their sponsors strongly endorse the presence of these men at Harvard as

contributing to the scholarly activities of the faculty while making no greater demands on facilities and funds than would result if the Research Fellows were replaced by equal numbers of graduate students.

6) A research appointee is normally not involved in formal teaching, only 5 to 10 per cent of them holding part-time appointments as non-tenure members of the teaching faculty. Though not great in numbers, these appointees play an important part in the teaching as well as the research of a few departments.

7) While the fraction of research appointees at Harvard who are subsequently named to the teaching faculty is very small, such research appointments frequently lead to academic posts elsewhere, and thus are beneficial to the teaching careers of the incumbents.

Since only 35 per cent of those questioned sent back replies, the response of research appointees to the questionnaire was rather disappointing; the statistical information that follows should therefore be received with caution. For what it is worth, however, we can report that the majority of those responding are married, have non-working wives, rent housing in Cambridge, spend more than 75 per cent of their time in research (and consider this situation ideal), regard physical facilities at Harvard as neither especially attractive nor limiting, are satisfied with their relations among their peers and with senior faculty, and would leave Harvard if they were offered higher salaries elsewhere.

The general conclusion of the Committee on the basis of all these responses is that no drastic change of the policies of the Faculty of Arts and Sciences in regard to research appointments is in order, even though the total number of such appointments should be continuously reviewed to make sure that the functioning of the graduate school is not jeopardized.

The Committee also recognizes that the research activities and needs of various departments and research centers of this faculty are so diverse that rigid rules concerning the numbers of research appointees and their duties and privileges would be detrimental. However, it recommends that a group be named to represent those organizations within the faculty which have substantial numbers of research appointees and to consider a

number of not altogether inconsequential problems, such as: the optimal degree of uniformity in salaries; the nature and extent of teaching open to Research Fellows who are formally on full-time research appointments and the extent to which the organizations represented, rather than individual faculty members, should be concerned with the selection and thereafter with the placement of post-doctoral research assistants who hold appointments as Research Fellows.

iv. *The* Ad Hoc *Committee System*

Although it is likely that every Harvard President since Henry Dunster has called on others for advice and counsel when facing hard decisions, the present system of *ad hoc* committees, viewed in the long history of the University, is of very recent origin. Even a generation ago there seems to have been no prescribed procedure, of the sort that we have come to know so well, whereby the President, having received a departmental recommendation for a permanent appointment, convenes an *ad hoc* committee comprising several persons from outside the University, plus one or two from his own faculty, to meet with him and the Dean in order to review a man's achievements and credentials, examine witnesses, and aid in reaching the decision that, if favorable, will be transmitted to the governing boards for final action.

Like so many other things at Harvard nowadays, this procedure may be traced to the report of the Committee of Eight. In part codifying "existing practises and existing trends" and in part attempting to suggest reforms, the relevant section of the report (pages 106–109) did two important things: it strongly reaffirmed the prerogative of the departments, under normal circumstances, of originating recommendations for tenure appointments, and it urged an expanded use of advisory committees whereby the administration could be assisted in its task of evaluating and implementing such proposals by departments. The first of these achievements has been most recently ratified by Mr. Pusey's last report, which says, almost in passing, that "responsibility for faculty appointments rests in the first instance on the departments . . . themselves, and a major measure of a department's true quality is the skill and seriousness with which it discharges this responsibility." The second, as we shall see,

has been ratified by the administration's handling of appointments since 1939.

As expounded by the Committee of Eight, the consultative procedure, providing for everything from brotherly advice to parental supervision, was capable of extremely varied functions. On one level, for example, and at its most permissive and fraternal, it could be employed by small departments that, lacking the "expert competence" to determine a candidate's qualifications, might wish to be "augmented" by other members of the faculty who would assist in the deliberations. In such cases the "extended recommending group" — which, significantly, would "ordinarily" be created by the department itself, so that the two were co-extensive — would presumably serve the dual purpose of framing a proposal for the President and then of helping him assess its merits.

As the Committee of Eight recognized, however, a procedure of such pastoral simplicity would clearly be inadequate for "certain situations" in which the administration might "well dissent" from a department's recommendation or disapprove of its corporate behavior. "It sometimes happens," we are told in the report,

> that a department has lost its specialized competence, through failing to keep abreast of developments in its field. It may then need, through the intervention of the Administration, to be reconstituted, or to receive an infusion of "new blood." Or a department may be paralyzed by internal dissension, and be incapable of constructive and unified policy. Or a department may, through an unconscious process of inbreeding, have become narrow and one-sided in its outlook. A department which, in any of these ways, or in others, fails in its proper function, requires assistance in order to reassume its normal responsibilities.

In such instances, the consultative procedure would undergo a transformation, for then the "extended recommending group" described above would become a real *ad hoc* committee, created by the administration, superseding the department, and acting in a constabulary and remedial capacity.

It is clear that in the generation since the Committee of Eight tried to normalize and strengthen these procedures they themselves have changed. Whereas the use of the department, "augmented" by its allies, as both "an extended recommending group"

and also as a consultative body has completely disappeared, the use of the *ad hoc* committee as an administrative tool created by the President has now become routine: what was conceived of as a sort of therapeutic aid for the administrative relief of sick or disabled departments has come to be the standard procedure for processing permanent appointments in most of the University. A token of this change is afforded by the so-called Bundy report, which shows that what in 1939 had been advanced — probably with considerable diffidence — as a tentative proposal had by 1956 become a fact of life at Harvard. "When a vacancy has been declared and a recommendation has been made," the Bundy report explains,

> the next step is the President's appointment of an *ad hoc* committee to consider the recommendation and other possible candidates and to give him such advice as it sees fit. This element in our procedure is important and good; we strongly urge that no permanent appointment should be approved without seeking the advice of such a committee. . . . We see the *ad hoc* committee as having its greatest value when it is flexibly used as an instrument of advice, and not rigidly conceived of as an arbitrary hurdle in the pathway to appointment. We think it an institution of great value, reinforcing but never replacing the responsible judgment of the President.

An examination of the minutes of all the *ad hoc* committees convened by the President between 1955 and 1967 makes it clear that these groups, employed as the instruments of advice described by the Bundy report, have proved to be essential in the complex workings of the faculty. Despite occasional ambiguity in the minutes — itself a reflection of intricate discussions, involving many candidates, that sometimes led to inconclusive or tentative agreements — the bare statistics are impressive. In the period covered by our survey, more than 200 committees assisted the administration in weighing the merits of some 300 candidates for permanent appointment, of whom roughly two-thirds were endorsed, the others being either disqualified outright or returned to the departments for further scrutiny and possible resubmission. Of the formal invitations resulting from these actions, some 200 were accepted and 29 declined.

However, such figures cannot suggest the variety and complexity of the committees' operations. Although it was by no means uncommon for the advisory group, convened to review

a single recommendation for a well-defined vacancy, to reach an easy, quick decision, in many instances the committee was required to evaluate several candidates for several different but reciprocally interacting jobs, with the result that the range of reference and discussion was notably enlarged. For example, of the twelve committees in 1955–56, nine were concerned with single recommendations, whereas the others dealt respectively with two, three, and five. Similarly, of the twenty-four committees in 1963–64, nineteen were concerned with single recommendations, whereas one dealt with two, two with three, one with four, and one (for research appointments with tenure limited to a budgetary institution) with eight. Complications of a different sort arose when, as not infrequently it happened, a committee was invited not only to review specific recommendations but also to analyze the workings of a department and join in long-range planning for its demonstrated failings and its anticipated needs.

These assignments often led to discussions and recommendations of such serpentine complexity that they may best be indicated by a few examples (drawn from dozens scattered through the minutes):

> Declining to rank a slate of three candidates on the ground that the department's "preliminary" consideration had been too much "restricted," the committee suggested that the department be instructed to undertake a thorough discussion of some "alternative candidates," one of whom was subsequently appointed without further consultation.
>
> Invited to suggest ways by which a department could "strengthen" its offering in a hitherto neglected branch of knowledge, the committee took five separate but related actions: 1) it unanimously recommended the importation of one man and also (on its own initiative) suggested a "fully acceptable" alternate; 2) having regretfully eliminated four superior but presumably unavailable persons as candidates for another post, it gave its "qualified" endorsement to a fifth and also listed three others whom it thought "worthy" of consideration in the future; 3) it "warmly" endorsed another recommended candidate for yet another post but professed itself not "qualified" to "act regarding alternates"; 4) asked to "pass on a list of candidates" for

a joint appointment, it split its vote on one and declared the other three unsuitable; 5) it gave as its "preponderant opinion" that yet another person "merited" the title of professor.

Convened to "discuss the program" of a certain branch of the University, the committee concluded that the resources of the department were inadequate for coping with contemporary developments, suggested a fundamental change in its activities, and proposed a slate of possible candidates for the directorship of the reconstructed operation.

Asked to consider the recommendation of promotion for a certain assistant professor, the committee "became involved" in a discussion of two of his colleagues, one of whom received endorsement while the other was rejected.

Asked to review recommendations for two associate professorships, the committee was "reluctant" to approve them because it thought that neither candidate would fill the outstanding need of the department, which was in another area. Thereupon it drew up and sent to the department a slate of four for the post that it considered vital. Ultimately one of these was named to a professorship, together with one of the two original candidates to an associate professorship.

Asked to review a preferential list of five men recommended for a permanency, the committee rearranged the order of the slate and then endorsed all five.

Asked to consider the recommendation of a man from another university for a professorship, the committee endorsed the candidate unanimously, but then it pointed out the "serious need" of the department for another appointment in another area of the field.

Asked to review a split recommendation for a professorial appointment, the committee agreed not only that the candidate lacked "sufficient strength" to join the Harvard faculty but also that the most pressing need of the department — which it duly specified — could not be met by the person recommended.

Asked to assess the merits of three candidates for a single job in a badly split department, the committee "did not find a convincing case" for any one of them, whereupon

the President instructed the department to restudy its problems and return with another recommendation the following year.

It is no doubt safe to say that almost every department in the University, at one time or another, has had occasion to murmur or to growl about its misadventures with these *ad hoc* committees. To be sure, we listened — with incredulity and envy — to one chairman's assertion that his large department's record was unsullied: it had presented no candidate to an *ad hoc* committee without prior assurance that an invitation would be accepted when and if it came, and moreover his department had gone before no *ad hoc* committee without getting what it wanted. Such felicity, however, was not widely shared; indeed, it was unique. Although we can report no deep and general disaffection with the *ad hoc* system, we can report complaints, both open and oblique, about the glacial tempo of naming and assembling these advisory groups, about their preconceptions as to what is or is not good for a department, and about the way their cumbersome machinery sometimes inhibits a chairman's freedom to maneuver in a competitive situation.

For example, one chairman wondered if the *ad hoc* system had not been rendered "obsolete":

> Is it responsible for giving us a faculty of older men? Or does the fault lie in the department? I suggest that reform be considered that will encourage adventurous appointments of a younger group. An initial suggestion would be the formation of appointment committees from among the younger members of a profession. They are better able to judge innovation than the elders. The primary justification of the *ad hoc* committee system is that it prevents the formation of stodgy and ingrown departments. In a number of cases it has failed to do so. This is a problem worth investigating.

Another chairman told a cautionary anecdote about a young man making $12,000 elsewhere, who, after a preliminary approach from Harvard, had been raised to $16,000, and was forthwith raised again (to $20,000) when at long last Harvard's formal offer came. This episode had prompted speculation, he went on to say, about our inability to meet "the slippage and successful counterbidding" in tight negotiations — an inability, or at any rate a disadvantage, that is widely charged against the deliberate workings of the *ad hoc* system.

While recognizing the force of such complaints we strongly urge that the system be retained. Given a faculty which in size and complexity has changed as much as ours within a single generation, it is hard to see how the departments could long retain their proper functions or the administration discharge its executive responsibilities without the aid of these committees. On the one hand, they serve not only to protect and even strengthen the recommending power of the departments, but also they help to check the local jealousies, the favoritism, and the inbreeding to which departments are notoriously prone. On the other hand, they enable the administration not only to maintain a sensitive contact with the teaching personnel but also to meet their wants and needs, as channeled through departments, with an objective and informed response. To be sure, the system needs improvement, especially in the tempo of its operations, but it has long since proved its value (as our citations from the minutes show), and we ourselves believe that with the adjustments and reforms to be suggested in Chapter VII it can be of even greater value in the future.

Chapter V

THE COMPENSATION OF THE HARVARD FACULTY

A report on the recruitment and retention of the Harvard faculty requires an examination of salary, fringe benefits, and related conditions. Such an inquiry is not preempted by the reassuring AAUP 1966–67 report that the Harvard average academic year compensation of full-time faculty members was $18,700, heading the list and showing a substantial lead over other major institutions of higher education.[1] Neither is it sufficient to report that the thoughtful letters from department chairmen, reviewing their experience at the tenure ranks over the past decade, leave the general impression that compensation very rarely has been a significant independent factor in the recruitment and retention of this faculty.

Average measures of compensation may well mask serious problems for particular ranks, age groups, departments, specialties, and families with special medical or educational problems. The compensation of the average scholar elsewhere, moreover, is no basis on which to maintain scholarly leadership here. This Committee has tried accordingly to make a searching examination of compensation at Harvard, for various groups which comprise the faculty, including comparisons with compensation at other leading universities. We have sought to ascertain those groups within this faculty for which salary, benefits, or related conditions may be most significant in the recruitment and retention of these scholars. These pressure points are identified in order to appraise priorities in considering our recommendations.

This chapter starts with a review of the Harvard salary scale and comparison with salaries at other leading institutions. The discussion then turns to salary differentials by field, age, and

[1] American Association of University Professors, *Bulletin*, June 1967, p. 144. "Compensation" includes academic year salary and fringe benefits.

years subsequent to the Ph.D. degree at Harvard and at other universities. A section follows on ranks and titles. The data on job offers developed by the questionnaire and a survey of faculty opinion is then summarized. A section is devoted to certain major fringe benefits. A final section specifies the priorities the Committee recommends with regard to compensation.

Harvard Salaries

The Harvard salary scale, the salary for the academic year for each rank, is shown in Table 1 for various dates since 1946–47. The table also specifies the number of members of the faculty in each rank.

The actual payments which any salary scale yields to members of the faculty depend critically upon the way in which these scales are administered; that is, the distribution of individuals within each range, the rate of advance within a range and among ranks. The actual yield of these salary scales, as measured by the arithmetic mean and the median salary for the years since 1946–47, is presented in Table 2.

The data in Tables 1 and 2 show that Harvard salaries increased substantially more rapidly in the past decade than they did in the first decade after World War II.[2] The rates of increase in the median salaries in the two decades and for the twenty-year period as a whole can be readily compared in Table 3.

The rates of increase in salaries in the past decade particularly have been larger in the non-tenure than in the tenure ranks. The increase in the past decade in the median salary was 82 per cent for instructors, 63 per cent for assistant professors, 52 per cent for associate professors, and 54 per cent for professors.[3]

The tables also reflect the fact that as salary scales have risen for professors the range of discretion in setting salaries has grown both absolutely and relatively in the past decade. In the late 1930's the normal salary range for the professor was $8,000 to $12,000; in 1966–67 the normal range was $15,000 to $26,000.

[2] In making comparisons over the period 1946–47 to 1956–57 or 1946–47 to 1966–67 it is to be remembered that in 1956–57 the pension plan was revised so that the 5 per cent of salary for all ranks which had previously been contributed by the faculty member was thereafter contributed by the University, in addition to the previous University contribution of 7.5 per cent.

[3] Salary data for the rank of lecturer are not included here since the compensation of lecturers tends to be related to other salaries.

Table 1
Harvard Salary Scales, 1946–1967

	1946–47	1951–52	1956–57	1961–62	1966–67
Professor *	8,550–13,403	9,667–14,667	10,000–15,000	12,000–23,000	15,000–26,000
Associate Professor	5,025–7,500	6,133– 8,667	7,000– 9,000	9,000–13,000	11,000–15,000
Assistant Professor	4,375–4,500	5,000– 5,667	5,500– 6,500	7,500– 8,700	9,000–10,600
Instructor	3,500	4,000	4,500	6,500– 7,000	7,800– 8,600
			Number of Appointees		
Professor *	150	162	185	235	282
Associate Professor	43	65	56	46	48
Assistant Professor	34	60	75	87	134
Instructor	58	65	76	86	79
	285	352	392	454	543

* Tables do not include University Professors. In 1966–67 there were five University Professors whose work was primarily in the Faculty of Arts and Sciences and whose professorial salary rate was $28,000.

Table 2
Harvard Mean and Median Salaries, 1946–1967

	1946–47		1951–52		1956–57		1961–62		1966–67	
	Mean	Median	Mean	Median	Mean	Median	Mean	Median	Mean	Median
Professor *	10,308	9,900	12,048	12,167	12,994	13,000	17,448	18,000	20,029	20,000
Associate Professor	6,427	6,525	7,880	7,667	8,062	8,200	11,000	11,000	12,261	12,500
Assistant Professor	4,385	4,375	5,275	5,333	5,896	5,750	7,947	7,800	9,551	9,400
Instructor	3,298	3,500	3,970	4,000	4,389	4,500	6,536	6,500	8,132	8,200

55

Table 3
Percentage Increase in Median Salaries

	1946–47 to 1956–57	1956–57 to 1966–67	1946–47 to 1966–67
Professor *	31	54	102
Associate Professor	26	52	92
Assistant Professor	31	63	115
Instructor	29	82	134

* Tables do not include University Professors.

62

A Comparison with Salaries in other Major Universities

The cooperative survey of compensation in 1966–67 made with ten other major universities [4] underscores the complexities in making systematic comparisons among universities. At least three of the group have no formal salary scales; several others have only a formal starting salary for a rank but no formal maximum for one or more ranks. In seven out of the ten universities salaries paid to one rank significantly overlapped the salaries paid to another rank; thus, associate professors may be paid $10,000 to $17,500 and professors $12,500 to $25,000. In most of the universities an associate professorship, as at Harvard, carries a tenure appointment, but in others the rank of associate professor does not necessarily involve tenure.

Table 4

Arrays of Salaries, 11 Universities, 1966–67 *

	Normal Starting Salary Associate Professor	Normal Starting Salary Professor	Maximum Salary Professor
	$11,300	$14,200	$34,000
	11,000	14,000	32,000
	11,000	14,000	30,000
	10,500	14,000	30,000
	10,000	13,500	28,000
	10,000	13,500	28,000
	10,000	13,000	26,000
	10,000	12,300	26,000
	10,000	12,000	26,000
	9,000	12,000	24,400
Harvard	11,000	15,000	26,000**

* These salary arrays do not include fringe benefits.
** Exclusive of five University Professors.

Despite these serious difficulties, one general view of salaries of these ten universities in 1966–67 in departments corresponding to the Faculty of Arts and Sciences is provided by arrays showing the normal starting salary for associate professors and professors and the highest salary for professors. Each array is independent, and the starting and highest salaries for the same university are not necessarily shown on the same line. It is recognized, of course, that individuals may in fact be started above the normal minima cited.

[4] The other universities in the group were California (Berkeley), Chicago, Columbia, Cornell, Michigan, M.I.T., Princeton, Stanford, Toronto, and Yale.

It may be noted in passing that for the year 1966–67, the AAUP rated as an "A" a minimum compensation of $10,850, including fringe benefits, for the rank of associate professor and $14,530 for professor; it assigned an "AA" rating to a minimum compensation of $12,490 for the rank of associate professor and $17,220 for professor. (No major university was ranked as "AA" as far as the minimum scale was concerned.)

The "average compensation for full-time faculty" for 1966–67 for nine of the universities in our special study are publicly reported to the AAUP, and are shown in Table 5.

Table 5

Average Compensation for Full-Time Faculty, 1966–67 *

(Including fringe benefits)

	Compensation	Number of Full-Time Faculty
University of Chicago	17,376	776
Columbia University	15,573	927
Cornell University	15,762	737
University of Michigan	15,060	1,346
M.I.T.	16,203	730
Princeton University	15,356	557
Stanford University	16,947	600
Yale University	14,976	784
Harvard University	18,700	828

* The order of universities listed in this Table is not the same as the order of listing in Tables 4, 6, or 9.

While these data do permit a general comparative view of compensation in similar institutions, they do not provide much assistance in depicting the specific competitive position of Harvard for particular ranks, fields, specialties, ages, and for scholars of great distinction.

At the rank of professor and associate professor, the Harvard salary scale in 1966–67 appears to be in about the same relative position to other leading universities as it was in 1949–50, based upon data from the Greene report (pp. 32–34). At that time the Harvard scale for professors, $9,000–$15,000, and the average salary of $11,350 were above those of any of the eleven other universities surveyed in that report. The margin of lead, however, has narrowed over the intervening seventeen years. The Harvard scale and average salary at the rank of associate professor in 1949–50 was not quite at the top, being narrowly

exceeded by two of the other eleven universities, but in 1966–67 the starting salary for that level was virtually at the top (see Table 4).

The comparative position of Harvard at the non-tenure ranks of instructor and assistant professor is not easy to assess, in part because the rank of instructor in many other universities includes both those with a Ph.D. and those who have not completed the degree. Moreover, the assistant professorship in most institutions has become the hiring-in rank for the new Ph.D. in most fields. The coöperative survey provides the following salary data:

Table 6

Arrays of Salaries, Instructors and Assistant Professors, 1966–67

	Range for Assistant Professor	Range for Instructor with Ph.D.	Ratio of Assistant Professors to Instructors with Ph.D.
	$8,900–10,600	None	
	8,750–11,000	$7,500–8,750	3:1
	8,500–10,750	7,000–8,000	27:1
	8,500–14,000	None	
	8,000–14,000	6,000–9,000	4:1
	8,000–15,000	5,000–10,000	18:1
	8,000–14,600	6,500–9,500	7:1
	8,000–13,000	Not reported	
	8,000–10,000	7,800–8,500	4:1
	7,000–13,000	6,000–9,000	7:1
Harvard	9,000–10,600	7,800–8,600	1.5:1

In 1966–67 Harvard had far more instructors, with a Ph.D., than did any of the other institutions. Indeed, the rank has virtually passed from the academic scene in these other universities as an effective hiring-in rank for staff with the Ph.D. The following comments from other universities are illustrative:

The majority of new Ph.D. appointments of full-time faculty members during 1966–67 was at the nine month salary of $8,900. In a few cases the starting salary was $9,400. [Assistant professor scales.]

In recent years it has become increasingly difficult to appoint officers with the Ph.D. as instructors. There are virtually no instructors with the Ph.D. in the natural sciences, few in the social sciences and more (but the number is decreasing) in the humanities.

Faculty ranks at ——— begin with the "instructor" designation.

This title is disappearing except possibly in the service departments. The new Ph.D.'s are typically appointed at the assistant professor level.

——— almost invariably appoints the owner of a new Ph.D. at the rank of assistant professor. It is also customary practice to precede that title with the word "acting" in cases where a man's degree has not been conferred, dropping the "acting" qualification as soon as his university certifies completion.

In a few departments, chiefly in the humanities, new Ph.D.'s are hired as Instructor at a salary of $8,000 to $9,000 in 1967–68. It is more normal, however, to hire teachers who have just completed the degree as assistant professors, $8,500 to $10,500 in 1967–68.

Harvard has not been immune to similar tendencies. But the ratio of 1.5 to 1, assistant professors to instructors at Harvard (the Harvard rate was 1 to 1 a decade ago), indicates a much greater capacity to recruit fresh Ph.D.'s at a lower salary and at a less advantageous title. Part of this comparative advantage derives from hiring Harvard Ph.D.'s who are already on the scene (50 out of 76 instructors in 1967–68 were Harvard trained) and part arises from the attractiveness of Harvard as a place for research and teaching to young scholars in many fields.

Salary Differentials at Harvard and at Other Universities

The "traditional principle of uniformity within each rank," to use the term applied by the Committee of Eight, is not to be understood as an isolated salary policy. It is a coherent part of an educational and appointments policy. First, it is a commitment to the expectation of top-quality appointments throughout a department. While some appointments in a department no doubt prove to be more distinguished than others, the department is viewed as composed of scholarly peers, with varying specialties, who are likewise peers in compensation. Second, this homogeneity applies in large measure across departments and across the areas of natural sciences, social sciences, and the humanities. Although the exterior "market" has tended to value various specialties quite differently, at one time or the other, the differences in compensation among areas at Harvard have probably been much less than in other major institutions.

The Harvard salary scale has been characterized traditionally by a second principle: the salary differentials between instructors

and professors has been relatively larger than in other institutions. As the 1956 *Report of the Committee on Compensation* stated: "The steady tendency in our profession and others has been to a narrowing of the real distance between the salary of the beginner and that of the senior professional. We think this trend should be resisted and even reversed. Harvard has a long tradition of insistence upon the importance of what is paid to the very best men; we think that tradition should be firmly maintained" (pp. 2–3). As Table 2 indicates, this narrowing process has continued; the median professor salary was 2.9 times the median instructor salary in 1956–57, but the differential has been reduced to 2.4 times in 1966–67, without regard to the erosion that had taken place in many departments in the instructor's rank as a starting rate. In other terms, the median salary of instructors for most of the postwar period was approximately 35 per cent of the median salary of professors, but it increased to 41 per cent by 1966–67.

The high degree of homogeneity among fields in the administration of the Harvard salary scale in tenure ranks is reflected in Table 7.

Table 7

Harvard Median Salaries for Tenure Ranks by Field, 1966–67

	Associate Professors	Professors *
Natural Sciences	$13,000	$20,000
Social Sciences	12,250	21,000
Humanities	11,500	20,000
Total Faculty	12,500	20,000

* Exclusive of University Professors.

In all other universities in the cooperative survey the variation among areas was greater, with the natural sciences highest and the humanities characteristically lowest.

A more detailed measure of homogeneity in salary administration is provided by salary data by age and years after the Ph.D. degree within each of the three areas. These data identify the competitive pressure points where salaries for professors elsewhere are higher than at Harvard. They show salaries for pro-

fessors by particular fields, age groups, and years after the Ph.D.

The analysis of these data for Harvard is presented in Table 8, which shows that the Harvard salary scale has been so administered that in 1966–67 full professors, as indicated by the median, in all three areas achieved a salary of $20,000 in a period of 15 to 20 years after the Ph.D.

Table 8

Harvard Median Salaries for Professors by Years after the Ph.D. Degree by Area, 1966–67

(Percentage of total in the field in parenthesis)

Years after Ph.D.	Natural Sciences	Social Sciences	Humanities
40 or more	21,000 (8)	22,000 (1)	
35–39	22,000 (13)	25,000 (7)	$21,000 (15)
30–34	21,000 (14)	22,000 (15)	21,000 (14)
25–29	22,000 (19)	22,000 (11)	20,000 (20)
20–24	22,000 (10)	21,000 (13)	20,000 (17)
15–19	18,500 (20)	20,000 (25)	19,500 (19)
10–14	17,000 (15)	18,000 (14)	15,500 (11)
5–9	19,000 (1)	19,000 (4)	15,000 (4)

These data also show that the composition of the faculty is not highly concentrated in certain age brackets. The Harvard distribution results in part from the appointment chart procedures and in part from the fact that expansion in this faculty has been relatively evenly spread over the years. These distributions are essential to appraise salary comparisons among universities, since one faculty may be comprised largely of younger scholars and another of a high proportion of older professors.

The data from the cooperating institutions indicate that Harvard salaries at the tenure ranks are under most competitive pressure in the 10 to 20 years after the Ph.D. degree or in the period from the middle thirties to the middle forties in the career of the scholar. Table 9 provides the data for 8 of the cooperating institutions.

The Harvard pattern of salary increases may yield higher lifetime earnings after appointment to tenure, and even a higher present value of discounted lifetime earnings. Nevertheless, a higher annual salary elsewhere in the 10–20 years after the Ph.D. degree may be sufficient in some cases to influence adversely the acceptance of a Harvard appointment or sufficient to induce movement away from Harvard. The years of the

Table 9

Median and Maximum Salaries by Area for 10–15 and 15–20 Years after the Ph.D. Degree

MEDIAN

	Natural Sciences		Social Sciences		Humanities	
	10–15 years	15–20 years	10–15 years	15–20 years	10–15 years	15–20 years
	$15,000	$17,000	$19,000	$19,000	$15,000	$17,000
	22,500	24,500	21,000	20,500	19,000	23,700
	17,000	19,500	18,000	19,000	15,500	18,000
	18,500	19,000	19,500	18,200	18,000	22,000
	15,000	15,700	14,600	17,600	13,800	15,000
	16,700	16,500	15,500	16,600	16,700	15,500
	17,000	15,000	15,000	15,500	17,500	17,000
	17,000	19,000	19,000	19,000	17,000	17,000
Harvard	17,000	18,500	18,000	20,000	15,500	19,500

MAXIMUM

	Natural Sciences		Social Sciences		Humanities	
	10–15 years	15–20 years	10–15 years	15–20 years	10–15 years	15–20 years
	$20,000	$30,000	$22,000	$25,000	$19,000	$20,000
	26,000	31,000	28,000	29,000	23,000	30,000
	19,500	24,000	24,000	21,500	21,000	23,000
	26,000	34,000	21,500	29,000	27,500	22,000
	21,500	21,200	18,600	22,800	18,600	19,500
	25,500	24,500	16,250	25,550	18,000	16,000
	23,000	24,000	17,000	18,000	18,000	20,000
	21,000	25,000	22,200	23,000	23,000	23,000
Harvard	21,000	24,000	22,200	23,000	20,000	21,000

mid-thirties to mid-forties are typically years of rapidly rising family expenditures. These are also years in which national and international reputations in a field are often firmly established. They are years decisive for mobility; the propensity to move generally declines afterwards, at least until the approach of retirement begins to influence professional and family plans.

These years were less a problem competitively for Harvard in an earlier period when its absolute lead in salary at the rank of professor was somewhat greater. Other universities and research organizations — the outside market — may not pay as high salaries as Harvard on the average, 25 years after the Ph.D. degree, but in recent years a number of them appear to be higher, at least for the most outstanding talent, in the period of a career 10 to 20 years after the Ph.D. degree.

It is, of course, recognized that there are some differences among areas in the timing of this critical period. The median ages for the completion of the Ph.D. degree for tenure members of the faculty appointed in the last decade was 25 years in the natural sciences, 28 years in the social sciences, and 29 years in the humanities.

More important is the lifetime pattern of salaries, or lifetime salary after tenure. Several patterns of the same aggregate lifetime salary may be envisaged: (a) a rise from the starting tenure salary to a plateau at 17–20 years after the Ph.D. degree sloping only slightly upward thereafter; (b) a gradually rising salary, continuous with age, which reaches its peak near the retirement age; (c) a pattern which reaches a plateau and declines in the later years, or at least does not keep pace with salary levels of younger men as the general level of salaries continues to rise. These patterns are independent of the total amount of compensation, discounted to present value. The configuration of (a) corresponds to the present administration of the Harvard salary scales. In the view of the Committee, considerations of the retention and recruitment of the Harvard faculty compel a steeper increase in the first decade after tenure appointment, independent of the discounted aggregate lifetime earnings.

Ranks and Titles

The Committee of Eight report in 1939 established a maximum period of eight years from the Ph.D. degree to tenure at Harvard, three years at the rank of instructor and five years as faculty instructor (assistant professor). The decision on tenure was to be made no later than midway through the fourth year. This system replaced an arrangement under which the maximum period could be seventeen years. The 1939 report found, on the basis of 1931–1935 data, that the normal age for the completion of the Ph.D. for those appointed to the faculty was 29.5 years. That committee concluded that faculty instructors (assistant professors) would be about 37 when confronted with the alternative of obtaining either an appointment to the tenure ranks at Harvard or appointment elsewhere (p. 21).

The following tabulation shows the age of completion of the Ph.D. of members of the faculty appointed in the period 1957–1967 to the tenure rank of associate professor or permanent lecturer and the age of such tenure appointment by areas.

Table 10

Age Completed Ph.D. and Age of Tenure Appointment to Associate Professor or Permanent Lecturer, July 1, 1957–June 30, 1967

	All Areas	Natural Sciences	Social Sciences	Humanities
Age at Ph.D. Completion (1957–1967)				
75th Percentile	30	27	29	33
Median	27	25	28	29
25th Percentile	25	24	27	26
Age at Tenure Appointment (1962–1967)				
75th Percentile	38	33	37	38
Median	33	31	34	36
25th Percentile	31	29	32	32

The age at completion of the doctorate and the age of tenure appointment have declined only slightly over the postwar period. The decline is largest for the youngest (25th percentile) age bracket. These figures suggest that there is a high concentration in appointments from within the faculty to tenure six to eight years after the doctorate.

The distribution of assistant professors by the number of years in the rank shows that a significant proportion of assistant professors leave before the start of the fourth year. Only 14.7 per cent were in the final two years of the five-year term.

Table 11

Number of Years Assistant Professors Have Held the Rank, 1967–68

	Total	Natural Sciences	Social Sciences	Humanities
1st year	36	13	18	5
2nd year	53	23	16	14
3rd year	33	18	7	8
4th year	17	4	8	5
5th year	4	1	1	2
Total	143	59	50	34

In testimony to this Committee some departments stressed that young scholars having just completed the Ph.D. degree need a substantial period, such as five years, before their research work can be adequately judged. Young scholars in these fields

have made the same observation to the Committee. Other departments have stressed the need for an initial appointment of five years to provide a greater degree of stability and greater average experience in the teaching of undergraduate courses. On the other hand, some departments appear anxious to maintain a shorter period of initial appointment such as is now provided by the one to three years of an instructor appointment; they want to observe a new Ph.D. for a period before making a five-year commitment. Many young scholars similarly appear to be interested in a brief appointment in a Harvard department after the doctorate. Also, a single department may prefer appointments of different lengths for different members of its junior staff.

In view of these diversities in interests among departments and young scholars and teachers, the recommendations of the Committee provide that the initial appointment with a doctorate or its equivalent to the rank of assistant professor may be for a term of three or five years and be uniform among all in the rank or variable among individuals as each department may decide. Any three-year appointment may be extended, but reappointment should not exceed a total of five years in the rank.

The outside period established by the Committee of Eight from the Ph.D. degree to the decision on tenure is actually only six and one-half years, since a decision is made midway in the fourth year of the present assistant professorship. We do not believe that the outside period should be further reduced. There are individuals and disciplines or specialties where the full period is essential to the young scholar and teacher to prove himself.

Accordingly, if the rank of assistant professor is to be a maximum of five years, another non-tenure rank of three years is requisite to the rule of a maximum of eight years from Ph.D. degree to an appointment without limit of time. The recommendations of the Committee provide that the rank of associate professor be made a term appointment of three years. The Committee is aware that this recommendation would alter a long-standing precedent. The 1956 *Committee on Appointments, Promotions, and Retirements* reported that this title "has given us some difficulty," but that committee favored keeping the rank by a "strong majority" (pp. 11–12).

As the 1956 report stated, "Under our present methods no

appointment as associate professor is offered to any man except in the confident expectation that his work will in due course justify promotion" (p. 12). The period between appointment as associate professor and professor has been reduced in the past decade and averages between three and four years. There appears to be no significant variation among areas in the rate of promotion. For practical purposes, at the present time tenure appointments to the rank of associate professors are advanced without exception to professor.

Given the proposed elimination of the instructor rank, the faculty has the choice of extending the rank of assistant professor to eight years or so, in one or more steps, or making the associate professorship a term appointment so that the professorship alone would normally carry tenure. The Committee has elected the latter alternative, in part because the existing rank of associate professor has become virtually an automatic step, in part because the proposed arrangements would permit Harvard to invite without tenure assistant professors from other institutions with an increase in rank or associate professors from other universities without a reduction in rank, in part because it should be possible to restrict appointments to the new rank to those who genuinely show promise for appointment to tenure, in part because some other universities have associate professors without tenure. This Committee rejects for Harvard the alternative of using the same title for both term appointments and appointments without limit of time. It is also to be noted that some Harvard faculties, such as the Law School, provide for the single tenure rank of professor.

Facing the practical difficulty of recruitment of men of established reputation and position we see an increasing need to discover and attract potentially outstanding individuals before they are too firmly settled in some other university. A study of the 159 appointments to the Harvard tenure faculty made in the last decade indicates that 79 young men at Harvard were promoted from within this faculty to tenure positions while only 6 appointments [3] to such positions were made from the junior ranks of other universities. This is understandable, in that a department hesitates to risk a permanent appointment when the supporting information is not extensive. The course of attempting

[3] Two in the humanities, three in social sciences, and one in the natural sciences.

to get promising young men to come as assistant professors is difficult since they do not find much attraction in moving with no improvement in rank or salary. The recommendations of the Committee are designed to improve the attractiveness of Harvard to assistant professors elsewhere.

The Views of the Faculty

The questionnaire distributed in early December 1967 on "The Harvard Environment for Study and Living" provides additional information on financial and other factors influencing the recruitment and retention of the Harvard faculty.

The picture that emerges is of a tenure faculty that is frequently courted with offers from other institutions at significantly higher salaries; and an increased salary is reported as the aspect of an offer most likely to attract the tenure faculty to another university. Moreover, a majority of the faculty apparently believe they would be financially better off at another institution. While a substantial fraction of this faculty (43.6 per cent) received outside income that exceeded a third of their Harvard salary, 97 per cent of these say such income is essential to maintain their current standard of living.

However, the resignation rate to accept offers in other universities is exceedingly low. Only 24 tenure members of the Harvard faculty made such a change in the period from 1957–58 to 1966–67. The tenure faculty reports that numerous offers were rejected, not because of Harvard's compensation, income opportunities, or facilities, but because of the general intellectual stimulation and the caliber of the students.

Sixty per cent of the tenure faculty reported offers of appointments elsewhere in the past two years. As might be expected, the fraction of the assistant professors and instructors reporting such offers was higher, 80 per cent, and 65 per cent of these offers involved an increase in rank. Among administrators the proportion with outside offers was 48 per cent. Among tenure members reporting offers, 37 per cent had 3 or more offers. More than 82 per cent of the offers to tenure faculty members were from other universities, with about 5 per cent of the offers coming from each of the following: government, industry, and foundations and other non-profit organizations. There were no doubt many more inquiries and feelers.

The faculty was asked to compare outside offers with the

Harvard situation in a number of respects. The tenure faculty rated the "income from all sources" at the outside institution as "superior" in 54.9 per cent of the offers and about equal in 19.5 per cent of the offers (see Appendix Table XV for a summary of other factors considered by tenure faculty concerning these offers). In the case of the non-tenure staff the income represented in the outside offer was rated "superior" in 69.1 per cent of the offers. The median salary figure by which the outside salary exceeded the Harvard salary in all offers was between $5,000 and $6,000 for tenure faculty and $2,000 to $3,000 for non-tenure.

A related question asked all faculty members, whether they received an outside offer or not, to indicate whether a "person in your field of about your age and general professional standing" would currently be better off or worse off financially at Harvard as compared to such comparable institutions as Yale, Columbia, Chicago, Stanford, Michigan, or Berkeley. Among tenure faculty 14.3 per cent replied they would be "considerably better off" or "a little better off" at Harvard, while 52.7 per cent replied they would be "considerably better off" or "a little better off" at such other institutions. The figures for the non-tenure staff, as might be expected, attest even more strongly to financial rewards elsewhere: the figures are 7 per cent and 77.2 per cent respectively.

Another question asked what aspects of offers might be strong enough to attract a member of the faculty to another university. Among tenure faculty, 49.4 per cent checked "increased salary"; 29.9 marked the opportunity to get a fresh start; 25.2 per cent specified special laboratory or other facilities; and 22.6 per cent marked reduced teaching load.

Table 12 summarizes the replies of the tenure faculty to a question which asked them to specify from a list the three most attractive and three least attractive features of the Harvard environment.

Although the Harvard tenure faculty is the highest paid as a group in the country, the replies to the questionnaire suggest that it is not money alone that keeps a large fraction here. A distinguished faculty with a relatively homogeneous salary schedule is vulnerable to financial offers elsewhere. Indeed, one might almost define a distinguished faculty as one for whose members other institutions would gladly pay more. But the

Table 12

Reaction of Harvard Tenure Faculty to Aspects of Environment

(Per cent of Faculty Checking each Item)

	Attractive	Unattractive	Neutral
Association with undergraduates	34.8	2.6	62.6
Association with graduate students	53.5	.9	45.6
Association with colleagues	55.2	2.6	42.2
Intellectual climate	60.9	.9	38.2
Cultural opportunities of Greater Boston	20.4	5.7	73.9
Geographical area	12.2	27.4	60.4
Reading period	14.8	1.7	83.5
Libraries	30.4	3.9	65.7
Laboratories	5.2	10.4	84.4
Secretarial support	3.9	35.7	60.4

intellectual climate, colleagues, and the quality of students appear to be the decisive attractions. The relative merits of financial rewards and intellectual climate or other intangibles at Harvard enter into the appraisal which individuals make here and elsewhere. It varies from professor to professor and from department to department. The margin of Harvard security is not large, but neither does it appear to be precarious.

Benefit Plans — Pensions, Retirement, and Leave Policy

The Committee has reviewed the present Harvard benefit plans seeking to assign priority to those features which have most impact upon the recruitment and retention of the faculty. Accordingly, this report contains a selective examination of certain areas in which questions have been raised most frequently in the letters from chairmen, the questionnaire, and the comparative study of other universities. Pension, retirement, and leave policies are reviewed in this chapter; schooling and housing benefits are considered in the next chapter.

Harvard benefit plans are in the main University-wide rather than designed for the Faculty of Arts and Sciences alone; this fact needs to be recognized in reviewing any proposal to alter them.

1. *Retirement Plan.* The Harvard Retirement Plan provides that the University pay 12½ per cent of salary toward retirement benefits. The payment is increased to 15 per cent for persons who have reached age 55 and to 20 per cent for those

who are age 60 to 66. The University contribution to the retirement plan in the year starting July 1, 1968, is estimated to be 14.8 per cent of total salaries paid to Corporation appointees who are members of the plan, including a 1 per cent figure in addition to the contributions noted. The faculty member is not required to make a contribution to the retirement plan. This level of contributions by the University is excellent compared to most other university plans.

a) A major change was made in the retirement plan effective with those retiring June 30, 1967. A guarantee of 50 per cent of the final six years' average salary, computed on a single-life annuity basis at normal retirement, was introduced for those with at least twenty-five years of participation in Harvard retirement plans.[6] The guarantee is exclusive of social security benefits. The guarantee provides for supplemental payments to make up any difference between the income from accumulated contributions for an individual and the guarantee. The guarantee is applicable to Option A of the Harvard Retirement Plan and to TIAA fixed income options, but it does not apply to CREF.

The significance of this new feature of the Harvard Retirement Plan is indicated by the fact that very few members of the faculty who have retired in recent years have achieved under fixed income options a pension equal to 50 per cent of the final six years' average salary. A figure of 35 per cent is probably more typical.

The Committee understands that soon there may be another option for faculty members who are close to retirement. Officers invited to continue after age sixty-six could elect to take retirement income at age sixty-six plus continuing salary, or they could elect to take salary alone and defer a pension until after they cease working. The first option would permit a larger cash income during the final years of employment.

b) The question is raised whether the faculty is adequately protected against inflation under the Harvard Plan. In an era of continuing rising prices the issue is of major concern.

The Harvard Retirement Plan permits members of the faculty once in five years to opt out of the Plan (Option A) and select TIAA (Option B) including CREF (College Retirement

[6] A guarantee of 30 per cent applies after 15 years of participation, with an increase of 2 per cent for each year of participation up to 25 years.

Equities Fund), the variable annuity plan. Under the maximum equity option, 75 per cent of pension contributions may be invested in equities (CREF) and 25 per cent in the TIAA fixed income plan.

There were 3,034 Harvard University officers participating under the Harvard Retirement Plan (Option A) and TIAA (Option B) as of April 1968. About 80 per cent of the total, 2416, were enrolled under Option A. Of those under TIAA, the great majority have elected CREF, and three-quarters of these selected the 75 per cent CREF Option. Although individual officers of the University have had the opportunity to place as high as 75 per cent of their pension contributions into equities, it appears that no more than 10 per cent have availed themselves of this opportunity.

It is clear that no single investment plan for pension contributions is ideal for all faculty members. They differ in their expectations of price changes in the future, in the proportion which accumulated pension contributions constitute of total assets, in the distribution of other assets, and in their willingness to assume risks in equities. The opportunity to choose among alternative plans, provided their comparative features and consequences are well understood, is an advantage to the faculty as a whole.

The major revision in the Harvard Retirement Plan effective with those retiring June 30, 1967, which provides for the 50 per cent guarantee of the final six years' average salary after twenty-five years of participation constitutes a form of protection of pensions with rising salaries. Supplemental payments are now made under the Harvard Retirement Plan when accumulated contributions are inadequate to meet the pension guarantee. This change is likely to have major consequences which are not widely understood. For the foreseeable future the guarantee has substantially removed a relationship between University contributions and pensions for most members of the faculty. Persons on the faculty with 40 years' service will receive little more, if any, than those on the faculty with 25 years' service if their final six years' salary is the same. The new feature of the pension plan provides strong financial incentives to stay at Harvard until retirement since the supplement to make up the guarantee is available only on retirement. The new pension feature also has salary implications; it encourages pressures for

higher levels of salary during the last six years prior to retirement.

There are other ways in which the University could provide a greater measure of protection against inflation. The University's General Investment Account could well share some of the appreciation in capital values by writing up from time to time the value of pension accounts. The University does declare an occasional dividend for restricted endowment fund accounts increasing the value of the principal. Capital dividends of 10 per cent were declared on three occasions since the beginning of 1960. The issue is complex, involving the relative claims of pensions against other competing uses for capital gains and the determination of the internal rate of interest paid on retirement funds accumulated by the University compared to the rate paid on endowment funds. In recent years the rate of interest paid on accumulating pension accounts for individuals has been 4.5 per cent; the plan contains a guarantee of 2¼ per cent.

c) In an increasing number of pension and retirement plans arrangements have been developed for early retirement, apart from disability, by mutual agreement between the individual employee and the employer. After some minimum number of years of service, the pension is proportionately reduced by the early retirement. It would appear appropriate to consider the improvement of the early-retirement program at Harvard operative between the ages of 60 and 66. Retirement might also be made partial.

d) The 1956 reports of the Committee on Compensation (February 10, 1956) and Committee on Appointments, Promotions, and Retirements (March 14, 1956) both recommended that the then existing policies on retirement be revised "to permit the continuance of most members of the Faculty on half pay and a half-time schedule for a period of four years between 66 and 70."

During the course of the last decade a larger proportion of those reaching the retirement age of 66 in the faculty has been continued. There are three typical arrangements: half-time to 68 or 70, full-time to 68, or full-time to 70. While no single arrangement is ideal for all retiring members of the faculty, this Committee believes that in most cases the recommendation of the 1956 Committees is appropriate.

The timing of the decision about retirement or continuation on the faculty after age sixty-six, full-time or part-time, is a matter of considerable concern to members of the faculty approaching that age. They are often anxious over the decision and understandably desire to make alternative plans as soon as possible. In these circumstances the Committee is of the view that it would be most helpful if the decision could be made earlier than in the past.

2. *Leaves and Flexibility in Work Loads.* The rules applicable to the tenure faculty provide that the six-year period between sabbatical leaves "may be interrupted once, ideally at its mid-point, by a year on leave without pay. However, such a special leave must ordinarily be preceded and followed by at least three years of active duty in residence."

During 1966–67, 54 tenure members of the faculty (16 per cent) were relieved of a portion of their teaching duties, primarily in order to conduct additional research financed by Harvard-administered sources. This group includes 25 who took normal sabbatical leave and used the time for research. Most of the other tenure members carried on research which was supported ultimately by temporary fund sources from outside the University. In addition, 21 tenure members were relieved of a portion of their normal teaching loads to conduct additional research which was financed directly and administered outside the University.

The current leave practices are apparently well regarded by the tenure faculty. In response to the questionnaire, 26.5 per cent rated them as generous, 58.0 per cent as satisfactory; 11.1 per cent said they were somewhat dissatisfied, and 4.4 per cent reported themselves as very dissatisfied.

The Committee endorses the flexibility which has developed in the administration of leave and in the partial substitution of further research for teaching. There should be genuine limits to such release from teaching since the faculty does not want to create purely research professors under any guise. There are also educational reasons for continuity in some teaching assignments within a department. But leaves and substitutions of additional research for teaching are strategically important in the recruitment and retention of many scholars of distinction. At particular times and circumstances in the career and research activities of a scholar such periods of abnormal release from

teaching are decisive to his scholarly contribution. These periods may be offset, in many cases, by more continuous periods of instruction without leave at other stages of a career. The continuation of a policy of flexible administration of leaves, and it is to be hoped some enlargement within practical limits, is likely to prove significant to the recruitment and retention of a distinguished faculty.

One further feature of special leaves and released teaching time calls for some comment. The financial opportunities for these departures are no doubt greatest in the natural sciences and generally least in the humanities. The opportunities for summer research compensation are similarly skewed. Thus in the summer of 1967, 72 per cent of the tenure faculty in the natural sciences, 33 per cent of those in the social sciences, and only 5 per cent of those in the humanities received summer compensation through funds administered by Harvard. This picture is not very different at other major universities. While there are stringent limitations on what one university can do to change this unequal pattern, the Committee feels that this problem is particularly significant in the recruitment and retention of faculty in many fields of the humanities and social sciences. One or two universities have pioneered in granting leave or released time in these areas to advantage, and relatively small financial resources applied in this way may yield significant returns.

3. *Other Benefits.* The Committee has reviewed a number of other benefits which members of the faculty have suggested need improvement. The maximum limit on the group life insurance plan should be increased; the travel insurance policies should be broadened to include all travel, not just that on University business; and benefits under the medical program should be improved under Blue Cross and Blue Shield in a number of respects. The Administrative Committee on the Faculty Retirement Plan should review these benefit programs to recommend the detailed provisions of such improvements, with provision for significant faculty participation.

Priorities

This Committee has sought in matters of compensation and rank to ascertain the problem areas of greatest significance to

the recruitment and retention of the Harvard faculty, at both tenure and non-tenure ranks. Its objective has been to assign priorities, indicating in sequence the most urgent questions. It is aware that priorities and time preferences differ widely within the faculty, but the Committee unanimously concludes that the following are the preferred compensation claims on present and prospective faculty resources.

1. *The Salary Scale of Non-Tenure Ranks.* The most urgent requirement is to raise the salary of the young scholar who has just achieved the Ph.D. degree. The salary of $7,800 and the rank of instructor are simply not competitive in many fields. The decisive point is that the present salary and instructor rank in many departments unduly cuts Harvard off from access to the best young scholars developed at other universities.

While many departments can man their non-tenure positions largely from Harvard Ph.D.'s, the excessive concentration on home-grown talent is undesirable as a matter of educational policy. Some departments, such as History (13) and Government (7) relied exclusively on Harvard Ph.D.'s at the instructor rank, while Mathematics (8) had none of its graduates with this title. Fifty-seven per cent of the 219 instructors and assistant professors in 1967–68 were drawn from Harvard graduate training. Four universities each supplied 9 members, or 4.1 per cent each of this group: University of California, Columbia, M.I.T., and Princeton. A total of 24 universities in the United States and 9 from other countries were represented in the degrees of the non-tenure faculty (see Appendix Table VIII).

Many Harvard departments have in fact already abandoned the rank of instructor and hire from outside only at the rank and salary of an assistant professor, starting at $9,000. The changing use of the two non-tenure ranks is illustrated by the fact that in 1956–57 there were 75 assistant professors and 76 instructors in this faculty; ten years later there were 134 assistant professors and 79 instructors.

The tensions which arise in non-tenure ranks from hiring graduates of other universities as assistant professors and Harvard Ph.D.'s as instructors at lower salaries are sooner or later destructive of morale and productive scholarship. While Harvard can no doubt continue to hire many of the most promising young scholars fresh from other graduate schools and from Harvard departments at salaries below those required to attract

them to many other leading universities, the Harvard salary scale at the rank of instructor ($7,800–$8,600) is by common consent too low to recruit the quality and the diversity of non-tenure faculty required by Harvard departments.

The Committee has made various cost estimates of the increases in salary schedule proposed for the non-tenure ranks. The estimates assume that the 1967–68 total of instructors, assistant professors, and lecturers is distributed in the same length of service-salary brackets. The estimates also assume that fractions of salaries now paid by research grants and restricted endowment income will bear the salary increases. The estimates also involve complete adjustments based on years of service which may in this respect involve an overstatement of the immediate cost since the recommendations of the Committee do not involve automatic promotion to a higher non-tenure rank based on length of service but rather a case by case review of each situation.

The Committee estimates that the increased costs of its salary recommendations, including fringe benefits, is in the order of $275,000 a year for assistant professors and instructors with an additional $95,000 for adjustments in present salaries of tenure associate professors and lecturers, or a total of approximately $370,000 a year, or 2.9 per cent of the 1967–68 unrestricted budget for salaries of Corporation Appointees and contributions to retirement plans, or 1.7 per cent of the total unrestricted expense budget.

This Committee is so strongly of the view that the salary scale of the non-tenure members should be increased, particularly for the new Ph.D., that it has concluded this adjustment should be placed into effect even though it may require some reduction in the number of the non-tenure faculty and corresponding departmental adjustments.

2. *The First Decade of Tenure.* This decade, when the average faculty member is between 35 and 45, is of critical importance to the recruitment and retention of a distinguished faculty. It is in this period in a scholarly career that the Harvard salary arrangements appear to be most vulnerable to competition from other leading universities. The Harvard average salary lead over other universities at the rank of professor on the average has been eroded somewhat over the past ten years. The expansion in centers of higher education with graduate instruction

and the increase in research funds have multiplied the number of offers for scholars established in a discipline. Many specialties are evolving rapidly and a premium is placed on new techniques associated with younger scholars. The relatively homogeneous salary schedule at Harvard further provides other institutions with the opportunity more readily to make superior offers in individual cases. We feel that in the administration of the salary scale, appointments in this category need to be advanced in many cases more rapidly than in the past.

The Committee finds these years so critical for the recruitment and retention of the Harvard tenure faculty that it believes salary adjustments on an individual basis should be made therein even though there may be correspondingly smaller adjustments in later years of a career.

Chapter VI

HOUSING AND SCHOOLING IN CAMBRIDGE

A discussion of faculty housing and the schooling of faculty children in Cambridge cannot be limited to the Faculty of Arts and Sciences. All the Schools of the University are involved, though in different degree. Furthermore, any substantial action the University might seek to take to improve housing and schooling will inevitably involve much closer relations with the Cambridge City Government and the Cambridge community, including our sister institution, M.I.T., than have been characteristic in the past. Within the last few years certain steps have in fact been taken that have altered relationships with the community. Among them are the involvement of the Medical School with the organization and staffing of the Cambridge City Hospital, the counsel and advice provided the Cambridge School System by the Graduate School of Education, and the organization, under Harvard and M.I.T. initiative, of the Cambridge Corporation. It would have to be said, however, that the influence of these steps on the environment to date has not been great.

To anticipate the conclusions of this chapter, it is the view of the Committee that the central policy problem confronting the University in this area is a choice between a minimal program which, while involving certain changes in present practice, would not significantly affect current trends, and a much larger program which could be put into effect only with the close cooperation of M.I.T. and the City of Cambridge. It is relatively easy to predict, at least for the next few years, where present trends are leading the city. It is much more difficult to discern what might be accomplished by a larger program and what steps would need to be taken to make such a program effective. The Committee is not equipped to study this larger problem though it is strongly convinced that the problem

eminently needs study. It is for this reason that we limit our conclusions and recommendations in this section to present practice and needed changes in this practice while strongly emphasizing the desirability of immediately proceeding to an intensive study of larger possibilities with the cooperation of M.I.T. and the City of Cambridge.

Housing

The current policy and practice of Harvard with respect to faculty housing can be rather simply described. The University owns 14 high-grade single-family houses of which a number are rented to those who either are now or have been administrative officers. (This does not include the residences of House Masters.) It owns 125 units at Botanic Gardens, 11 of which are small single-family houses (not included above). These are now mainly rented to faculty members though there are still a few non-faculty in residence. The small apartments and row houses in Holden Green, Shaler Lane, and Irving Street were acquired to house married students and are principally, but not exclusively, used for this purpose. During the last few years the University has bought a substantial number of housing units in connection with land acquisition for general University purposes. Most of these units are described as unsuitable for faculty occupancy, though in fact a few faculty members live there. Altogether 174 Corporation Appointees are housed in University owned units, of which 123 are at Botanic Gardens.

Recently the University has introduced a policy of acquiring single-family houses in Cambridge in the price range of $50,000 to $100,000 for resale to faculty members. Eleven such houses have been resold to date. The arrangement contemplates resale at the purchase price with an option permitting the University to reacquire the house at the market price current at the time the faculty member desires to dispose of the property. Difficulties connected with the resale of some of these houses suggest that the program may not be greatly expanded. Finally, the University some time ago introduced a program of second mortgage lending at 4 per cent interest. The maximum limit was raised to $10,000 in 1967, and these loans are now available to Corporation Appointees regardless of their place of residence. This has been a highly successful program judged by the number of second mortgages negotiated; some 170 are now outstanding.

It has made possible a substantial decrease in the amount of equity needed to acquire a house. If the University is to play a larger role in faculty housing, expanding and strengthening this program offer possibilities.

The University has entered into a contract with Hunneman and Company, a commercial real-estate firm, which operates the Harvard Housing Office on a cost-plus basis. Hunneman manages the University housing properties, both faculty and non-faculty occupied, serves as a clearing house for information on University property and other listings, and offers advice to faculty and students on housing matters. It is generally agreed that the services of the Housing Office are of use mainly to students and junior faculty. For the rest and with minor exceptions the acquisition and disposal of faculty houses in Cambridge are mediated by Harvard Square brokers or accomplished by direct negotiation between the interested parties. An exception to this rule is the valuable service rendered on occasion by Dean Trottenberg in helping newcomers to the University find houses. The small number of houses acquired by Harvard for resale has been useful in this connection. The University is unwilling to accept listings directly and is extremely reluctant to offer advice on housing to faculty members. Indeed it seems fair to say that in recent years Harvard has wanted to keep as far away from faculty housing problems as possible.

Whether this *laissez-faire* attitude has been a significant handicap to recruiting and retention of faculty is difficult to document. A substantial number of respondents answered the question "Do you feel that housing pressures were a primary influence in decisions of persons you know not to accept appointments at Harvard" in the affirmative. On the other hand, interrogation of the chairmen of departments in this faculty revealed only one or two instances in which it could be said that housing difficulty was the decisive consideration in the refusal of a Harvard offer. It is probably true, nevertheless, that knowledge of unfavorable housing conditions in Cambridge has been one element taken seriously into account in considering such offers. And it is certainly a fact that both newcomers and present faculty wishing to find housing in Cambridge have frequently encountered extraordinary difficulty.

Undoubtedly the main reason for this is the relative scarcity of houses in Cambridge, and a word needs to be said about pros-

pective trends. It is obvious that the supply of single-family houses in Cambridge is limited and equally obvious that the number will decline rather than increase as institutional and business uses of land expand. Furthermore, the trend of land prices and the prices and rentals of houses in Cambridge have been sharply upward since the war and there is no evidence of a decline in this trend rate. Any large-scale attempt of the University to acquire a larger share of the limited supply of single-family houses for faculty use would no doubt add to some extent to this upward movement. There are some things the University might do to increase the number of such housing units available, and these will be considered presently. But the fact must be faced that any sizeable increase in the number of housing units in Cambridge will have to take the form of apartments and town houses, mainly the former. Cambridge is an inner-core city with easy access to Boston and is inevitably destined for a pattern of more intensive land use.

Another important aspect of housing supply is the existence of a very considerable differential between housing prices and rentals in Cambridge and those in the surrounding suburbs. There is no reason to think this differential will diminish. The full effect of this difference on the residential location of the faculty has not yet been felt. A substantial number of the senior faculty now living in single-family houses in Cambridge acquired their homes in the 1930's, 1940's, and early 1950's when prices were much lower and the differential less marked. When these and other similar houses now come on the market the price tends to be out of reach of faculty members solely dependent on University income. On the other hand there exists within easy access to the University a very considerable stock of less desirable housing which with adequate reconditioning could be made suitable for faculty occupancy. It is possible that a somewhat more generous loan policy on the part of the University would lead to the acquisition by the faculty of this type of housing in larger volume.

Despite the extremely tight housing situation a rather surprisingly high percentage of both junior and senior faculty members continues to live in Cambridge. Sixty per cent of the junior faculty of Arts and Sciences live in Cambridge and 45 per cent of the senior faculty. Furthermore, replies to the questionnaire indicate that a substantial number of the faculty

now living in other towns and cities would like to live in Cambridge, though admittedly it is difficult to ascertain from the answers what price, space, and other conditions would induce them to move. It is still more difficult to estimate the effect on potential demand of a substantial improvement in the Cambridge school situation. Appendix Table X summarizes the shifting residential pattern of the faculty between 1951–52 and 1966–67.

The attitude in various schools in the University toward living in Cambridge appears to differ widely. The Dean of the Graduate School of Business Administration expressed the opinion that not many of his faculty cared to live in Cambridge. The Dean of the Law School, on the other hand, thought that many of his faculty preferred to live in Cambridge though he could think of no case in which recruitment to the faculty had been seriously handicapped by lack of Cambridge housing. There seems to be a sizeable unsatisfied demand in the faculty for Cambridge housing.

Reflection on answers to the questionnaire, however, suggests that the demand for housing tends to fall in three sub-groups:

a) Non-tenure faculty without children or with children of under school age. Replies to the questionnaire indicate that the majority of this group wants to live as close to the University as possible.

b) Faculty members with children of school age. Open space and excellent schooling are important and there are indications that a sizeable number of this group wants to live outside of Cambridge.

c) Older faculty members whose children are grown. There are reasons for believing that for many of these people the pull of Cambridge is strong.

Although this classification of housing demand has some validity, it would be wrong to take it too seriously. This is an extraordinarily diverse group of people with respect to taste, income, and other qualities that bear on the choice of housing. There are many of the junior and senior faculty with school-age children who do in fact live in Cambridge. And there are those without children who, finding Cambridge a rather unattractive city, prefer to withdraw to the countryside or to the more solidly urban environment of Boston. Nevertheless, there is enough in the above distinctions among the housing requirements of different age groups to take them into account in

University planning. There is not much the University can do to provide single-family dwellings in spacious grounds. What might be done about the school situation will be examined presently. The University could, however, and on its own add significantly to the supply of apartments and town houses within easy reach of Harvard Square.

The principal elements relating to the supply of and demand for faculty housing in Cambridge may then be summed up as follows:

The supply of single-family houses in Cambridge is limited and will diminish;

There is a considerable differential between housing prices and rentals in Cambridge and in surrounding suburbs. This has been an important factor in influencing faculty movement out of Cambridge, and the balance will probably change further as faculty members who acquired houses in a period of lower prices retire;

At the same time there is a considerable stock of lower-grade single-family housing that, with reconditioning, could be made suitable for faculty occupancy.

A high proportion of the junior and a somewhat lower percentage of the senior members of the Faculty of Arts and Sciences now live in Cambridge and there is evidence that many more would like to live in Cambridge if suitable housing were available.

We conclude that there is an unsatisfied demand for faculty housing of all types — single family, apartments, and town houses. The long waiting list for housing units at Botanic Gardens is only one piece of evidence.

The question may now be asked what is likely to happen to the urban environment of the University and to the members of the faculty residing in Cambridge if Harvard continues to follow its current *laissez-faire* policy with respect to faculty housing? There is no particular reason to believe that depressed areas would encroach on the University, at least any more than they do now. The special problems that have beset the University of Chicago and Columbia are unlikely to develop here. The business area around Harvard Square will undoubtedly expand, and shops and office buildings will continue to eat into the dwindling supply of houses. Other houses will be replaced by high-rise apartments, and recent structures indicate they will

also be high priced. Rising land prices, the changing occupational structure of Cambridge, and the convenience of the Harvard Square location for many professional types suggest that in real-estate terms the area will be "upgraded" rather than the reverse. The environment of the University will become more "urban" and the competition with faculty members for the available supply of housing will become more intense. There is little doubt under these circumstances that the percentage of Arts and Sciences faculty housed in Cambridge will decline.

There is really not much the University can do to alter this probable pattern of development. Harvard is already a city university and it is destined to become more so. There are, however, a number of things the University might do to increase the supply of housing available to faculty and to check the exodus from Cambridge.

The program of acquiring houses for resale to the faculty has to date been pretty much limited to dwellings in the $50,000 to $100,000 class. Although the demand for such houses is inevitably small there will continue to be faculty members, usually with other sources of income, who are in the market for such houses. As replies to the questionnaire indicate, 43.6 per cent of the tenure faculty have outside sources of income adding one-third or more to their University salaries. Furthermore, such acquisitions have on occasion proved to be a useful adjunct to recruitment. We recommend that this program be continued.

This program could usefully be extended to the acquisition and rehabilitation of lower-priced housing in (perhaps) less desirable but still acceptable locations. The replies to the questionnaire from faculty living outside of Cambridge indicate that substantial numbers would prefer to live in Cambridge if single-family dwellings were available in the $20,000 to $50,000 range. The acquisition and rehabilitation of such houses would probably involve a somewhat greater risk than the University has to date cared to assume. Among houses recently acquired, however, some seven or eight belong in this category. We believe that further acquisition is a risk well worth assuming, though we can understand that Harvard might want to proceed cautiously.

As we have indicated, the second mortgage loan program, available to all Corporation Appointees regardless of place of residence, has been extraordinarily successful. If the University is interested in holding faculty in Cambridge or attracting them

to Cambridge it might consider a plan to increase substantially the amount of low-interest money available to buyers of houses in Cambridge.

The University owns a few plots of land in Cambridge that are suitable for development for faculty housing. Of these the most promising is the five and one-half acre plot at Shady Hill. On this could be built 10 to 12 houses in the $50,000 to $100,000 class which conform to the standards of the immediate neighborhood. This could make a significant contribution to the housing available in Cambridge for well-to-do senior faculty. Alternatively, and without securing a legal variance, 28 smaller houses could be built, perhaps in the $20,000 to $50,000 range which is within the financial capacity of a much larger percentage of the faculty. To exceed this density would require the consent of the City of Cambridge. If this consent were secured it would be possible to consider a combination of apartments and town houses that might accommodate 120 to 150 or so family units. These would presumably be occupied by junior faculty, teaching fellows, and senior faculty members without school-age children. This third possibility could also provide about three acres in open green space. We are strongly of the opinion that the third option, if it can be realized, would make the most effective contribution to the faculty housing problem. An added consideration leading to this opinion is the apparent willingness of the Cambridge School Committee to rehabilitate the Agassiz School which serves this neighborhood if a greater number of children apply for admission.

The University also owns a three and one-half acre plot on Sacramento Street which may at a later stage be suitable for development as faculty housing. At present, however, it is rather densely occupied by houses and small apartments and resettlement problems would be serious. If redevelopment is considered at a later stage without reducing the number of family units available to non-Harvard personnel it would have to take the form of high-rise apartments.

If all these steps suggested above were taken it could not be pretended that they would make a significant difference in the urban environment of the University. They would, however, make an important and, in our view, highly desirable contribution to the availability of faculty housing in Cambridge. It is the nearly unanimous view of those who answered the ques-

tionnaire that it would be advantageous for the University community if more faculty lived in Cambridge. Unfortunately the trend is in the other direction and we regard it as a matter of very considerable importance to the University to check this trend.

There is an element of subsidy in what we propose, but it goes very little beyond what Harvard has already committed itself to. The University-owned houses are rented at figures that represent a substantial subsidy. The program of purchase for resale to the faculty involves a slight subsidy even if the house is resold at the purchase price, since the University has had to hold some of these houses for a period of time. The 4 per cent second-mortgage plan represents a subsidy in the sense that 4 per cent is below the average earnings on University investment. It should be emphasized, however, that this subsidy is not selective; it is available to any Corporation Appointee who wishes to acquire a house. The Botanic Garden apartments are subsidized in that the development of this plot was substantially below the densities that could have made the project economic. What the Committee has suggested goes a small way beyond current University practice.

Any element of subsidy involves a diversion of funds away from other possible uses, including an increase of salaries. But we believe that the importance of housing an increased fraction of the faculty in Cambridge, or stemming a decrease, is well worth the costs we propose.

As we have suggested, any serious attempt to change the environment of Cambridge would have to go much further than our proposals contemplate. And it would have to be undertaken with the coöperation of M.I.T., the Cambridge City Government, and perhaps other elements in the Cambridge community. We are not prepared to advise at this stage on what needs to be done and how but we strongly recommend that a study of this problem be undertaken.

Schooling

This section of the Report draws largely on replies to the questionnaire on "The Harvard Environment for Study and Living," on the M.I.T. brochure on the Cambridge public elementary and secondary schools published in 1962, and on a recent study directed by Spencer C. MacDonald of the Harvard

Graduate School of Education, updating and expanding information contained in the M.I.T. brochure.

Of those replying to the questionnaire, 74.7 per cent of the senior faculty and 62.5 per cent of the junior faculty answered "yes" to the question "Have you sent or do you plan to send any child to public primary or secondary school?" At the same time 58.6 per cent of the senior faculty and 32 per cent of the junior faculty are now sending children to private schools or plan to do so (see Appendix Table XIII). A significantly higher percentage of faculty children in Cambridge attends private schools than is true of faculty children in neighboring communities. Eighty per cent of faculty children of high-school age living in Cambridge attend private schools. A rather common practice for faculty parents both in Cambridge and outside is to send children to public schools in the elementary grades and transfer them later to private schools. In Cambridge there is a heavy clustering of faculty children in the Peabody, Russell, and, to a smaller extent, the Agassiz primary schools. There is also a large number of children of graduate students in the Houghton School, adjacent to Peabody Terrace. Very few faculty children attend Cambridge High and Latin School, and only an occasional faculty child attends Rindge Technical School.

Attitudes in the Harvard faculty to the Cambridge public-school system are negative and critical. Replies to questions concerning the quality of instruction in this system characterized it as "mediocre" and "marginal." Furthermore, neither senior nor junior faculty anticipates much improvement in the Cambridge schools. In contrast, impressions of private schools in the neighborhood are distinctly more favorable. Of the senior faculty 31.4 per cent and of the junior faculty 22.5 per cent describe them as "excellent," and a much larger per cent of both groups consider them to be "adequate." Concerning the Cambridge parochial schools a large majority of both senior and junior faculty professed no knowledge. The answers of those who expressed an opinion clustered around the evaluations of "mediocre" and "marginal."

These impressions of the Faculty of Arts and Sciences concerning the quality of Cambridge public schools and possibilities of improvement contrast rather strongly with the opinion of members of the faculty of the Graduate School of Education who have studied the Cambridge schools and somewhat less

strongly with opinions expressed in the M.I.T. brochure. It is probably fair to say that in the opinion of the educational experts the quality of the better Cambridge primary schools is as good as the better primary schools in surrounding towns. Furthermore, these observers detect signs of substantial improvement in the near future. The quality of the Cambridge high schools is in their opinion unsatisfactory, but again they foresee possibilities of considerable improvement.

The low esteem in which the Cambridge schools are held by members of the Harvard faculty, frequently expressed vigorously by those who have no first-hand knowledge of these schools, and the understandable reaction invoked among teachers in and supporters of the Cambridge school system is one very important strand in the not altogether happy town-gown relationship in Cambridge. One result has been to make Cambridge school administrators defensive and resistant even to the feeble efforts the University has hitherto been willing to make to contribute to the Cambridge schools. Fortunately there is now some evidence of change in the relationship between the public-school system and the two neighboring universities. To date none of the many candidates for the degree of Master of Arts in Teaching at Harvard, who are sent in large numbers as interns to surrounding school systems, has been invited to participate in Cambridge. Next year there will be a few. Both Harvard and M.I.T. are currently administering "Upward Bound" programs in Cambridge. A few members of the M.I.T. faculty now teach science courses in public schools on released time. Recently a member of the faculty of the Harvard School of Education has served as Director of the planning unit of the Cambridge School Department, and under his initiative three experimental programs have been funded under Title III of the U.S. Elementary and Secondary Education Act of 1965. These are small beginnings but they are significant and, with understanding on both sides, can grow into something important. Concurrently there are promising developments within the Cambridge school system itself as younger teachers are drawn from a much wider range of colleges and universities than has in the past been customary.

The indifference, if not hostility, expressed by many members of the Harvard faculty to the Cambridge public schools is in part explained by the existence of the alternative options of moving to one of the surrounding suburbs for purposes of

schooling or of sending children to the private schools. It seems evident, from replies to the questionnaire, that a considerable number of faculty members with school-age children chose their place to live with schooling in mind. Of the 118 tenure faculty with school-age children replying to the questionnaire, 21.4 per cent of the professors and 30 per cent of the associate professors said their choice of residence was made primarily with schooling in mind; 33.7 per cent of the professors and 30 per cent of the associate professors indicated that schooling was one factor, among others, in their choice. Of the senior faculty 27.3 per cent and of the junior faculty 14.5 per cent chose their location "in spite of" the character of the public schools; 32.3 per cent of the senior faculty and 66.4 per cent of the junior faculty said that schooling was not a factor.

As stated above, 58.6 per cent of the senior faculty and 32 per cent of the junior faculty either now send or plan to send one child or more to private schools. If we take into account senior faculty members who have sent children, now adults, to private schools these percentages would be somewhat larger. This, of course, does not mean that these children have attended or will attend private school during the whole period of primary and secondary education. As already mentioned, a common pattern is early attendance at public schools and later attendance at private. Nevertheless, it is certainly true that currently and in the recent past the private-school option has been important. It is a pertinent question whether it is likely to be as important in the future.

The reasons for sending children to private schools in this area are, of course, numerous. The size of classes is much smaller and the degree of personal attention much greater. The atmosphere of both study and play is more relaxed, less formal and less rigid. The private schools can and do reject problem cases and escape most of the difficulties these cause. The greater uniformity of family background probably accelerates the pace of instruction, though there are, of course, undesirable aspects to this uniformity. At least until recently, the route to prestige colleges has seemed easier for private-school students, though this apparent advantage may be diminishing. There is, no doubt, a social cachet attached to private-school education which may appeal to some faculty members.

The deterrents to the use of the private-school option in-

clude the high and rising level of costs and the limited number of places that are likely to be made available. Private-school administrators in this area do not project a major increase during the next few years in the number of places that will be made available in their schools, which means that, if the present preference patterns with respect to private schooling continues, there will be increasing competition for these places. In recent years tuition rates have increased rapidly and there is every expectation that this increase will continue. Present tuition rates for twelfth-grade students in leading private schools in this area are now around $2,000, and it is anticipated they may rise to $3,000 in the course of the next decade. Scholarship assistance tends to be rather meager. Although Harvard salaries are also expected to rise, it seems probable that ten years from now the tuition fee for a primary or secondary school student in a private school may absorb a larger fraction of a Harvard faculty salary than it does now. This will place a very heavy burden on faculty families with more than one child and without access to income outside University salaries. It could mean that the cost of schooling in the Cambridge area will become an increasingly serious handicap to recruitment and retention of the Harvard faculty.

What, if anything, can and should the University do to alleviate this situation? The Committee has considered various possible courses of action, including the establishment of university schools like those run by the University of Chicago, the provision of partial tuition following the Columbia plan, and more active participation by Harvard in the improvement of public-school education in Cambridge.

It is interesting and significant to note that of the eleven universities participating in the current enquiry concerning "Salaries, Fringe Benefits, and other elements affecting Faculty Recruitment and Retention," only two, Chicago and Columbia, offer anything in the way of assistance to faculty members in the education of their children at the primary and secondary level. Both of these are urban universities, located in areas in which public-school education is deemed to be inferior. However, as is true of housing, the Committee does not consider Harvard's problem to be anywhere near as serious as those confronting these two universities, and consequently the remedies they have favored may not be appropriate here.

The University of Chicago operates both primary and secondary schools and "Privileges of partial tuition remission (in graded amounts) in University schools are granted to the unmarried children of full-time and permanent faculty members."

Columbia provides "Partial scholarships for children of faculty residing in New York City who are enrolled in private schools, kindergarten through grade eight." Columbia also provides an annual subsidy to two nursery schools in the Morningside area which permits reduced tuition rates for faculty children.

There seems to be no case for the operation by Harvard of its own primary or secondary schools. The Graduate School of Education has evinced no desire to operate such schools. There are, moreover, good private schools in the neighborhood that probably would be glad to expand their numbers if adequately subsidized by the University.

There likewise seems to be no case for tuition assistance to faculty children at the primary level. The better public primary schools in Cambridge and neighboring towns are adequate and in some areas, including Cambridge schools, are in process of improvement.

The case for tuition assistance to faculty children in secondary schools is, however, distinctly more persuasive. Over 80 per cent of faculty children of secondary school age in Cambridge now go to private schools, and although the percentage in neighboring towns is not as high it is still substantial. Private-school tuition is expensive and becoming decidedly more expensive. In responding to the statement, "I am not making adequate provision for my children's education in the near or distant future," 52.9 per cent of the tenure faculty indicated "this is not a problem to me," 16.2 per cent classified it as "only a slight problem," 20.5 per cent as a fairly serious problem," and 10.5 per cent as a "very serious problem." The cost of educating their children obviously weighs heavily on a number of faculty families. It has an important bearing on faculty recruitment and retention and is a significant deterrent to choice of residence in Cambridge. The Committee therefore believes that there are strong reasons for extending the present Educational Loan Plan now available only for children in colleges and graduate schools to faculty children in secondary schools, regardless of where they live.

The Harvard Program of Loans for College Expenses of Children was put into effect in 1963. The plan provides that tenured

personnel may borrow from the University for the purpose of paying college and graduate school expenses of their children within specified limits. The limits vary with salary level; for example a professor with a salary in 1966–67 of $20,000 has an upper limit of $30,000. The term of the loan shall be no longer than 20 years or to the date of retirement, whichever is earlier. Prior to September 1966 the loans were at 5 per cent simple interest annually. Since that date no interest has been charged on new or outstanding educational loans under this program.

In the period November 1963–November 1967, 48 members of this faculty borrowed $211,792.25 under this plan. There were 24 new participants in the plan in the current academic year, reflecting, no doubt, the effect of the interest-free provision. It is possible to estimate the value of the provision by a comparison with interest payments required at commercial rates. For example, a 10 year $10,000 loan at 6 per cent simple interest requires aggregate interest payments of $3,332.

While the benefits conferred by this plan fall somewhat short of those connected with the tuition scholarship programs of a number of the universities in the coöperative study, the Committee feels that the Harvard plan is well conceived and that, suitably extended, it provides substantial assistance to faculty members in covering educational costs. An extension of the Plan to cover faculty children in secondary schools would facilitate planning of educational expenses over a longer period of time. If this is done there should be some increase in the present borrowing limit. The Committee estimates that as many as 100 tenure faculty members might wish to avail themselves of such an extension of the Educational Loan Plan.

While favoring some extension of tuition subsidies for private education, the Committee believes that the Cambridge public schools are better than the faculty commonly supposes, and we believe these schools are improving and can, with University coöperation, be improved still further. Even if this view is accepted, it would not be our expectation that the number of faculty children in private schools would decline very much. There is a large fraction of the faculty with incomes in addition to salaries who can afford and will want to afford to send their children to private elementary as well as secondary schools. At the same time a large percentage of those replying to the

questionnaire indicated they "might be willing to send their children to the Cambridge public schools if significant improvement were made." The operational meaning of "might" and "significant" is not crystal clear. But for faculty members without extra income living in Cambridge a realization that at least certain Cambridge primary schools are adequate and that the public-school system as a whole is definitely improving would remove a considerable worry. And it might also have some influence in stemming an exodus of faculty members from Cambridge.

It is obvious that Harvard cannot make such a contribution to the Cambridge public-school system unless it is invited to do so. And it is equally obvious that potential invitations have tended to dry up at the source in part because of the highly skeptical and critical attitude of the Harvard community. There is, however, as suggested above, considerable evidence that these relationships are changing. In an atmosphere of mutual confidence and respect there are a number of things that Harvard could do to coöperate with the Cambridge public schools. The Graduate School of Education is primarily concerned with problems of urban schools and maintains close connections with the school systems of Newton, Belmont, and other adjacent communities, supplying interns, consultation, and advice. It is ironic that such connections have not to date been effectively established in Cambridge. Harvard has a small scholarship fund available for graduates of Cambridge secondary schools who are admitted to Harvard. This fund might well be increased. The University could also usefully follow the example of M.I.T. and provide, on released time, a certain number of teachers and advisers in areas in which it is difficult for the school system to recruit, and there are, no doubt, many other possibilities that are worth examination. An alternative to rising private-school costs, which faculty members without additional income find increasingly difficult to meet, or to flight to surrounding towns in search of superior public-school education which may or may not be there would seem to be a determined effort to assist the upgrading of elementary and secondary schools in Cambridge.

As is true of housing, a really significant improvement in "The Harvard Environment for Study and Living" would appear to require a concerted effort by Harvard and M.I.T. in full coöperation with the Cambridge City Government.

Chapter VII

CONCLUSIONS AND RECOMMENDATIONS

I. *Titles, Salaries, and Benefits*

1. The committee finds that the rank of instructor, for appointment with a Ph.D. degree, has largely been abandoned in other institutions and its retention is inimical to recruitment in this faculty. The rank of instructor should be eliminated as the initial rank for a teacher and scholar with the Ph.D. degree or its equivalent. The rank of assistant professor should be the initial title for such an appointment.

2. The rank of instructor should be retained for a few teaching appointments, greater in responsibility than normally associated with teaching fellows, in which the Ph.D. degree or its equivalent is expected to be completed during the course of the academic year. Their term should be no longer than a year. The appointment should carry less than a full-time teaching load and compensation, the fraction to depend upon the extent of work remaining at the start of the term for the Ph.D. degree or its equivalent.

3. An appointment to the rank of assistant professor should be for a term of three or five years. The duration may be the same for all in the rank or variable among individuals as each department may decide. A three-year appointment may be extended, but reappointment should not exceed a total of five years in the rank.

4. The present rank of lecturer, for a term or without limit of time, for special situations should be continued.

5. The rank of associate professor should be made a three-year term appointment. The tenure of no present associate professor is to be adversely affected. Appointments to this rank should be limited to those who merit serious consideration for promotion to tenure, and a departmental recommendation to the rank should be required to provide evidence of such promise.

Professorial appointment should be without limit of time. Recommendations on tenure should be made by a department no later than the start of the third year of an associate professorship.

6. Assistant professors or associate professors on full-time teaching should be entitled to one term of leave with pay, normally in the fourth year, following their initial appointment with the Ph.D. degree or equivalent. Such appointments on a fraction of full-time teaching should receive that fraction of one term with pay from the faculty budget and the balance from such sources, typically research funds, as have paid the balance of the salary in the preceding years.

7. Assistant professors should become voting members of the faculty at the beginning of the fourth year of their appointment. Associate professors should, of course, be voting members of the faculty.

8. The Committee finds that the salary scale for non-tenure appointments is relatively low compared to other major institutions and it recommends the following new salary scale. The salary of the instructor should be computed on a full-time basis of $7,500. The salary schedule of the assistant professor should be $9,000 the first year with an increase of $500 each year to $11,000 in the fifth year. The salary of the three-year term associate professor should be $11,500 the first year, $12,000 the second, and $12,500 the third year. The starting professorial salary on the revised schedule should be $13,000.

9. The transition from the present ranks and salaries to the new schedule for incumbent appointments should be made on a review of each individual case.

10. The Committee finds that Harvard salaries at the professorial level are under most competitive pressure in the ten to twenty years after the Ph.D. degree, earlier in the natural sciences and later in the humanities, and that upward adjustments are necessary to attract scholars in this age range to Harvard and to discourage their movement away from Harvard. While recognizing the undesirability of abandoning the traditional Harvard principle of relative uniformity of compensation within ranks, the Committee recommends that some greater degree of administrative flexibility be regarded as appropriate in individual cases.

11. The top of the range of the salary scale for professors, $26,000 in 1966–67, should be increased in the near future

in view of the salaries paid at other universities. Moreover, the level of salaries should continue to be increased steadily in order to maintain our capacity to recruit and to retain this faculty.

12. The revision in the Harvard Retirement Plan effective June 30, 1967, provides minimum guarantees based on average salaries in the final six years of teaching and related to the number of years of participation in the plan. The financial incentives to remain at Harvard until retirement have thus been increased. The revision in the plan constitutes a significant improvement in retirement benefits. However the Committee recommends that the faculty participate actively in future changes in pensions and fringe benefits and to that end suggests that members of the faculty be added to the standing committee concerned with these matters.

13. The Committee recommends that individual members of the faculty should periodically review their elections under the Retirement Plan between Option A, the University's General Investment Account, and Option B, Teachers Insurance Annuity Association of America (TIAA), and particularly the options for variable annuity plans under College Retirement Equities Fund (CREF).

14. The Committee further recommends that the Corporation examine the possibility of adopting some form of variable annuity option within Option A of the Retirement Plan or some greater participation in the rise of equity values to protect pension values against the eroding effects of inflation. One possibility would be to write up the value of individual pension accounts in the same way that capital values of restricted accounts have been adjusted from time to time. Such adjustments would involve costs in the form of a shift to pensions from other alternative uses of earnings and appreciation.

15. The Committee endorses the recommendation of the 1956 *Committee on Appointments, Promotions, and Retirement* which provided for "the continuance of most members of the Faculty on half pay and a half-time schedule for a period of four years between 66 and 70." The Committee recommends that the decision respecting retirement, continuation on a half-time basis, or full-time basis in case of a member of the faculty approaching age 66 ordinarily be made no later than 18 months prior to the end of the academic year in which age 66 is reached.

16. The Committee endorses the policy that has introduced

flexibility in the administration of leaves and in partial substitution of additional research for normal teaching loads. Even greater flexibility is desirable at particular times and circumstances in the career of a scholar, consonant with the teaching requirements of a department. Since such leaves are usually financed by outside funds no charge on the budget of the faculty is involved.

17. A sum should be set aside in the budget of the faculty to provide some special leave in those areas and disciplines which do not have access to outside research funds and in which leave is decisive to research and writing at a particular stage in the career of a tenure member of the faculty. The University should make an effort in this way to redress in part the vast imbalance in the availability of outside research funds among fields.

18. The Committee recommends that the Administrative Committee on the Faculty Retirement Plan, which makes recommendations on benefit programs, with significant faculty participation, review certain features of benefit plans specified in Chapter V, such as the maximum limit on group life insurance, with a view to recommending detailed improvements in these benefits. The Committee believes that proposals to extend the present medical program to families of members of the faculty should be given sympathetic study.

19. The Committee believes it essential to establish an explicit priority order for financial claims on the limited resources of the faculty. Although there are many conflicting preferences within this faculty, the Committee ranks at the top of its priorities the improvement in the starting rate for new Ph.D.'s and selected increases in the salary of younger tenure members during the period of ten to twenty years after the doctorate.

II. *The Recruitment Process*

1. We conclude that the *ad hoc* committee system has on the whole served the faculty well in bringing independent judgment to bear on the process of recommendation for appointments without limit of time. *Ad hoc* committees have served a variety of functions beyond that of reviewing single recommendations. They have recommended one among a series of appointments proposed by a department; they have developed a list of possible appointments and ranked them; they have re-

viewed the desirability of a department entering a new specialty; and they have pointed out gaps and deficiencies in departments. The use of *ad hoc* committees should be continued.

2. The Committee recommends that greater use be made of more general *ad hoc* committees which might be convened periodically for a department, a group of departments, or related specialties in order to review policies and problems, discuss anticipated vacancies, canvass eligible candidates, and endorse a list of names for possible appointment. Such general *ad hoc* committees, not confined to the review of a single recommendation, could also elicit independent judgment about the needs of a whole area of knowledge, suggest expansion into areas in which talent is available, and recommend withdrawal from other areas. This procedure should reduce the total number of committees and provide advice which would ordinarily permit greater speed in extending a formal invitation.

3. The Committee is impressed not only with the need for independent judgment in the recruitment of faculty but also with the need for increased vigor and expedition in the operation of recruitment procedures. In particular, greater enterprise and initiative are required from departments and their chairmen. The day is past, if it ever existed, in which an invitation to Harvard was all that was required to bring a faculty member from another leading university. The growing number of scholars, specialties, universities, and research centers creates the need for widespread and systematic search for candidates for appointment.

4. The Committee finds that the Society of Fellows has been a most productive source of recruitment to the Harvard faculty. Among the present tenure members of the faculty 44 have been members of the Society of Fellows. (There are approximately 200 living alumni of the Society.) The Committee believes that a program to strengthen the resources and the appointment procedures of the Society of Fellows is of vital importance to the recruitment of the Harvard tenure faculty.

5. The Committee finds that in the decade from 1957 to 1967 tenure appointments were almost equally divided between those invited from other institutions and those promoted from non-tenure ranks at Harvard. Appointments directly to the rank of professor were made predominantly from outside Harvard, while those appointed to the rank of associate professor

ordinarily were promoted from non-tenure posts at Harvard. The Committee finds, however, that as a consequence of the great increase in the number of assistant professors and others in non-tenure ranks, their statistical chance of promotion has very substantially declined over the past three decades. The Committee of Eight report envisaged that 50 per cent of the faculty instructors (assistant professors) would be promoted to tenure ranks (p. 20). The current figure would be more like one in five or six on the average, although there is very great variation among departments. This drastic change in individual prospects of promotion has had its negative effects on the recruitment and retention of junior faculty and lends special urgency to efforts to make service in non-tenure ranks more attractive. The recommendations of the Committee to raise salary scales, to make appropriate adjustments in titles of appointments, and to provide more favorable leave and research arrangements represent steps in this direction.

6. We believe there are strong intellectual and scholarly reasons for having in the non-tenure ranks of a department young scholars who have taken their graduate training elsewhere. The recommendations of this Committee on titles and compensation should improve the opportunities in many departments for outside recruitment of assistant and associate professors.

7. The Committee is concerned by evidence of dissatisfaction among instructors and assistant professors in some departments. Some of these attitudes may be related to compensation and career prospects at Harvard. Some may arise from burdensome teaching assignments and inadequate research opportunities. A great deal appears to be related to status and relations with professors.

While this is not a new problem, the Committee recommends that each department review its practices as they affect this relationship. Teaching responsibilities, committee assignments, research opportunities, space allocations, closer relations with senior colleagues, and measures to assist placement no doubt all affect the atmosphere of a department and its attractiveness to young scholars.

The Committee also recommends that the Dean of the Faculty request particular departments to report to him the results of these reviews. The Houses and the research centers no doubt

can also make a further contribution toward the development of a sense of the intellectual community of scholars of all ranks.

A distinguished department with a reputation for genuine concern with the scholarly growth and professional advancement of its non-tenure members is likely to serve as the most effective magnet for recruiting an outstanding junior faculty.

III. *Research Appointments*

1. The Committee finds that the expansion of research appointments from 181 in 1951–52 to 541 in 1966–67 has been beneficial to both teaching and research. No major changes in policies are in order, although the number of such appointments should be kept under scrutiny as a matter of policy, both in departments and in the faculty as a whole.

2. The Committee recognizes that the research activities and needs of departments and research centers are so diverse that more rigid rules concerning the number of such appointments and their duties and privileges would probably be detrimental. However, we recommend that a committee, representative of departments and centers which have substantial numbers of research appointments, consider a number of problems, including degree of uniformity of salary, teaching opportunities for those formally on full-time research appointments, the methods of selection of research appointees in departments and centers, and the costs of space and other overhead charges.

IV. *Housing and Schooling*

1. The Committee believes that the recruitment and retention of the faculty, at tenure and non-tenure ranks, are increasingly influenced by the quality of life, including housing and schooling in the Cambridge and greater Boston area. The University is situated in the midst of an urban setting which will influence Harvard's future. It is timely for the University administration and the faculty alike to develop more substantial and constructive relationships with the City of Cambridge and the surrounding communities. The future of Harvard and the community are necessarily intertwined and a joint approach to common problems such as hospitals and medical care, public education and housing is even more essential than in earlier years.

Although the Committee makes some near-term recommendations involving Harvard and the Cambridge community, it urges the desirability of an immediate and intensive study of the larger possibilities of cooperation with M.I.T. and the City of Cambridge.

2. The Committee recommends that Harvard explore with M.I.T. and appropriate officials of the City of Cambridge the possibilities of a large-scale housing development open to other residents of Cambridge as well as to faculty members.

3. The Committee recommends that Harvard develop its Shady Hill property for faculty housing. A combination of apartments and town houses on this site would, in our view, be the best form of development.

4. The program of acquiring homes for resale to faculty members should be continued and extended to lower-priced units ordinarily in need of repair and upgrading. The second mortgage loan program should be applied to the requisite repair and remodeling.

5. The Committee judges that the second mortgage loan program, available to all Harvard appointees regardless of place of residence, has been extraordinarily successful and recommends its continuance.

6. To encourage residence near the University, Corporation Appointees acquiring homes in Cambridge might be offered a somewhat larger second mortgage loan than is available to Appointees residing outside of Cambridge.

7. The Committee finds that the quality of the public schools in Cambridge has improved over the past thirty years, and the better elementary schools in Cambridge match those of the suburbs.

8. For reasons specified in Chapter VI, the Committee believes that it would not be feasible for the University to establish a school for faculty children.

9. The most serious problems respecting the education of faculty children, below the college level, appear to arise in the secondary school years. The Committee recommends that the interest-free loan program for undergraduate and graduate study of faculty children, regardless of their parents' domicile, be extended to educational expenses of the secondary school years with a corresponding increase in the maximum loan permitted. This arrangement would also facilitate a greater degree of

freedom to faculty families in planning financing for the education of children.

10. The Committee recommends that the University, if invited, provide on released time a certain number of teachers and advisers in areas in which it may be difficult for Cambridge schools to recruit.

V. *Educational Policy and Financial Constraints*

1. The Committee finds a clear need for improved procedures both within departments and among departments to coordinate educational and financial decisions. New arrangements are essential if greater educational effectiveness is to be achieved, within and across specialties, in a period which appears likely to involve even greater financial stringency in the face of growing educational and research possibilities. Financial decisions need to be made with more explicit regard for their educational consequences, and educational decisions need to be weighed with more specific information on the costs and benefits of alternatives.

2. We recommend that the Dean of the Faculty, with the assistance of appropriate staff and in cooperation with each department, gather on a continuing basis data on each department and its costs. Such information should include the number of undergraduate students, concentrators, size of classes, number of graduate students accepted each year, fellowship support, dissertation support, graduate students in residence, degrees, special students, post-doctoral research appointments, teaching staff at various ranks, teaching loads and other duties, Graustein chart appointments, number of courses, secretarial support, space, computer use, research grants, contracts and funds, research overhead, and a review of expenditures, both restricted and unrestricted. These data should portray historical developments and permit comparisons and contrasts among departments.

3. Periodically a report should be prepared on each department by the Dean, with the assistance of staff and the cooperation of the department, on the activities and performance of the department and associated costs. Such a report should provide the basis for a full-scale exchange of ideas between the tenure members of a department and the Dean of the Faculty on departmental educational policies and financial resources. The department should be prepared to discuss its needs and plans

for the future, and it should be asked to consider alternative ways of achieving its instructional and research objectives, for instance, by changing the size and composition of staff, using new teaching methods, changing the number and regularity of course offerings, tutorial programs, the number of graduate students and research fellows, adjusting relative work loads, and the like. It should reassess its objectives, degree requirements, and consider various alternatives in its activities and in its pattern of expenditures. Such decisions constitute the neglected interface between educational policy and financial resources. The periodic departmental reports and reviews with the Dean of the Faculty might well be arranged to provide a basis for the general *ad hoc* committee proposed earlier in II, 2.

4. There is also need for systematic review of those decisions with impacts across departmental lines, if not on the whole faculty. Decisions on the creation of a new department, or the separation or combination of departments, involve both educational and financial considerations and they need to be more explicitly linked. The introduction of a new specialty in a department or the establishment of new facilities raises analogous issues. An internal *ad hoc* committee, with the assistance of the staff in the office of the Dean, may appropriately be created in such situations to weigh the consequences of various alternative courses of action.

5. In large departments, or in others facing complex questions, it is appropriate for the chairman of the department, with approval of the Dean, to be relieved of part of a full-time teaching load to permit greater attention to the management and administration of departmental affairs. Recruitment of faculty requires more time and deserves more attention than is usually devoted to it. Serious attention to the leadership and administration of departmental affairs may contribute significantly to the development and maintenance of departmental distinction.

6. The Dean of the Faculty will require additional assistance to carry out the recommendations of this report. For many years the responsibility and span of authority of the Dean have been very large and have been growing. This Committee has compiled a list of one-hundred and seventeen offices, departments, activities, and staff under the cognizance of the Dean. The Committee of Eight report provided for two assistant

deans (p. 125). Although the Committee believes that additional assistance and staff are required, it considers that the form and nature of such assistance are best left to the Dean.

7. The Graustein formula, which was designed to distribute appointments without limit of time among departments so as to maintain relative stability, has on the whole served the faculty well. It has helped to secure a wide age distribution within departments; it has curbed the tendency of retiring members to seek to appoint a successor without regard to a full review of the needs of the department and all the possible candidates; it has encouraged longer-range thinking concerning appointments to a department. On the whole, appointment charts have been flexibly and sensibly administered as is evidenced by procedures which permit departments on occasion to anticipate appointments and by the development of appointments in some larger departments to compensate for leaves apart from sabbaticals. The Committee recommends that the appointment charts be continued as they have in fact been administered. The Committee believes, however, that it is important to be able to appoint a distinguished scholar without strict regard to Graustein chart restraints.

8. The Committee regards the growth and distribution of new appointments without limit of time as central to the future strength of the faculty. There were a total of 185 tenure faculty in 1939–40, 240 in 1951–52, and 360 in 1966–67. (As a consequence of joint appointments with other faculties the number of members is larger than the number of permanencies allocated to the teaching departments in the Faculty of Arts and Sciences.) These numbers reflect a significant rate of expansion. The direction of growth is influenced, of course, by the Harvard administration through the priorities emphasized in capital-fund campaigns. As a rough approximation, however, it appears that donors have rather specifically determined the department of growth in half the new professorships; the Dean has had some discretion among departments and specialties after the donor has specified an area of interest in a quarter of the cases, and he has had a rather wide range of choice among departments in the other quarter of new positions, including those created by internal financing. The extent of this discretion is rather wider than the Committee had expected.

As time goes on the Dean will have greater discretion than at present in the allocation of funds supporting existing professorships. In November 1967 there were a total of 363 individuals holding tenure appointments in this faculty, some fully and others only partially on the budget of this faculty, with a total of 300 tenure slots divided among the departments; 235 of these positions were on the Graustein appointment charts, and 65 were "off chart" but in areas for which charts exist. The remaining tenure appointees either split their duties between the Faculty of Arts and Sciences and other faculties or related institutions, or teach in areas where charts do not exist. As incumbents leave the "off chart" slots, the appointments can in most cases, at least formally, be reallocated.

The Committee regards as essential to educational leadership the opportunity to shape in a measure the direction of new appointments and to choose among alternative uses of new funds. The Committee recommends that the budget of the faculty be arranged to permit even greater opportunity for the Dean, using the various consultative processes recommended above, to provide leadership in the allocation of new professorships.

9. The addition of a professorship typically involves additional costs to the faculty budget beyond the salary of the professor arising from related expenditures for secretarial services, space, supportive teaching assistance, library acquisitions, equipment, and the like. The Committee believes that these costs need to be given more careful attention and weight in the decisions affecting the addition of tenure positions and the growth of the faculty. These supplemental costs require more emphasis in campaigns for new chairs; in the assignment of new professorships to departments, the provision for these related costs should be specified. Indeed, the more intensive support of some present professorships, through better facilities, associated younger scholars, and research support should receive higher priority than the addition of another chair without such essential support.

10. The Committee recommends that the faculty concentrate upon a limited number of areas in which it can provide top-quality leadership rather than seek to achieve a full spectrum of appointments in every department and academic specialty.

Given financial constraints, the faculty cannot hope to cover all fields and specialties without risking a dilution of quality. On a departmental level we endorse coöperative arrangements with other institutions in the area to reduce duplication and to provide a more effective community of scholars.

LIST OF APPENDIX TABLES

TABLE I.	Response to Faculty Questionnaire
TABLE II.	Rank Distribution of the Faculty of Arts and Sciences by Area of Learning, 1951–52 and 1966–67
TABLE III.	Summary of Research Appointees in the Faculty of Arts and Sciences, 1951–52 and 1966–67
TABLE IV.	Selected Statistics of Growth Concerning Number of Faculty Members Present, Enrollments and Ph.D.'s Awarded, Classified by Area of Learning, 1951–52 and 1966–67
TABLE V.	Number of Theses Currently Being Directed by Professors and Associate Professors, 1967–68
TABLE VI.	Universities Which Employed Harvard Professors and Associate Professors Immediately Prior to Their First Tenure Appointment at Harvard (1957–1967)
TABLE VII.	Ph.D. Origins of Professors and Associate Professors First Appointed to Tenure at Harvard Between July 1, 1957, and July 1, 1967
TABLE VIII.	Ph.D. Origins of Instructors and Assistant Professors in the Faculty of Arts and Sciences, 1967–68
TABLE IX.	Comparison of Number of Harvard Assistant Professors and Term Lecturers in 1966–67 with Annual Average (1957 to 1967) of Faculty of Arts and Sciences Tenure Appointments Made From These Ranks
TABLE X.	Residence Distribution of Selected Ranks in the Faculty of Arts and Sciences, 1951–52 vs. 1966–67
TABLE XI.	Number of Responding Faculty Members Whose Spouses are Employed, 1967–68
TABLE XII.	Number of Children of Responding Faculty Members, 1967–68
TABLE XIII.	Number of Responding Faculty Members Who Send Their Children to Public and Private Schools and Colleges, 1967–68
TABLE XIV.	Number of Responding Faculty Members Whose Outside Income (Earned and Unearned) Exceeds a Third of Their Harvard Salary, 1967–68
TABLE XV.	Comparison of Harvard with Outside Offers, by Factor Considered in Deciding Whether to Accept the Offers or Not, 1967–68

Table I

Response to Faculty Questionnaire

On December 1, 1967, copies of the questionnaire entitled "The Harvard Enivronment for Study and Living" were mailed to individuals holding Corporation Appointments in the Faculty of Arts and Sciences. The questionnaire was composed of seven sections: Background Data; Personal & Family Statistics; Living Accommodations; Schools: Public & Private; Living in Cambridge; Time Usage; Offers Elsewhere; Outside Work; Financial Stress Points; Research Funds; and Attitudes — with many opportunities for respondents to include general comments as well as to check among the many alternative responses provided. Some of the questions were selected to permit comparison with the Greene report of September 1950, and some with the study which Professor Talcott Parsons is currently conducting.

A follow-up letter to those who had not yet returned their copies was mailed on December 21; 1095 or 52.4% completed the questionnaire with 75.8% of the senior faculty replying. From the non-tenured faculty, 234 questionnaires were received, a 64.8% return. The largest number (387) of replies came from teaching fellows.

The replies were coded and punched on IBM cards. The analysis, consisting primarily of tabular response, became voluminous. At last count it consisted of approximately 8000 pages of computer output. As Professor Holton has remarked, "The computer is the modern sorcerer's apprentice." While the major findings of the analysis have provided a basis for discussions and recommendations of the Committee, this report itself contains only a few of the findings themselves.

In addition to the tabular analysis, the remarks written on the questionnaire were transcribed and made available to the Committee. The transcription made it possible for the Committee to use the remarks and at the same time preserve the anonymity of the writers which might have been disclosed simply through the many identifying items of information.

A summary of the response to the questionnaire by teaching and research faculty is provided below.

Response to the Questionnaire

	Professors & Associate Professors	Assistant Professors & Instructors	Teaching Fellows	Lecturers	Research Associates & Research Fellows
Number who replied	243	135	387	99	105
Number who received questionnaires	322	219	1043	142	296
Per cent replying	75.8	61.6	37.1	69.7	35.5

Table II

Rank Distribution of the Faculty of Arts and Sciences (Including Division of Engineering and Applied Physics) by Area of Learning, 1951–52 and 1966–67

	Natural Sciences		Social Sciences		Humanities		Combined Total	
	1951–52	1966–67	1951–52	1966–67	1951–52	1966–67	1951–52	1966–67
Teaching Appointees								
* Professors	68	110	48	79	46	93	162	282
Associate Professors	30	16	13	13	22	19	65	48
Preceptors and Permanent Lecturers	4	7	3	7	6	16	13	30
Total (Tenure)	102	133	64	99	74	128	240	360
Assistant Professors	21	51	20	50	19	33	60	134
Instructors	25	20	12	34	28	25	65	79
Preceptors and Lecturers (Appointed for more than one year)	2	10	9	15	7	11	18	36
**Other Annual Teaching Appointees, Excluding Teaching Fellows	18	59	18	49	17	39	53	147
Total (Non-Tenure)	66	140	59	148	71	108	196	396
Teaching Fellows (Est.)	193	439	135	323	106	281	434	1,043
Total Teaching Appointees	361	712	258	570	251	517	870	1,799
Research Appointees (Teaching Departments Only)								
Senior Research Associates		3						3
Research Associates		52	8	7	1	2	9	61
Research Fellows and Miscellaneous	65	290	5	2	8	6	78	298
Total Research Appointees	65	345	13	9	9	8	87	362
GRAND TOTAL	426	1,057	271	579	260	525	957	2,161

* Excludes University Professors.
** Includes lecturers, visiting lecturers, visiting professors, teaching assistants. The majority of these appointees serve on a part-time basis, or for a single term.

Table III

Summary of Research Appointees in the Faculty of Arts and Sciences, 1951–52 and 1966–67 *

	Senior Research Associates		Research Associates		Research Fellows		Miscellaneous **		Total	
	1951–52	1966–67	1951–52	1966–67	1951–52	1966–67	1951–52	1966–67	1951–52	1966–67
I. *Teaching Departments*										
Natural Sciences										
Biology				2	13	54			13	56
Chemistry		1		11	42	137			42	149
D.E.A.P.				8		67	3	1	3	76
Geological Sciences				3	2	9			2	12
Mathematics				10	2	2			2	12
Physics		2		6	2	15	1	1	3	24
All Other Natural Sciences Teaching Departments				12		4				16
Totals		3		52	61	288	4	2	65	345
Social Sciences			8	7	5	2			13	9
Totals			8	7	5	2			13	9
Humanities			1	2	8	6			9	8
Totals			1	2	8	6			9	8
II. *Faculty of Arts and Sciences: Related Institutions, Centers and Primarily Non-Teaching Activities*										
Ctr. for Cognitive Studies				2		15				17
Ctr. for Int. Affairs				11		24				35
East Asian Research Center				7		3				10
Ctr. for Mid. Eastern Studies				5		7				12
Charles Warren Center						13		1		14
C. E. A.		5				9				14
H. Coll. Observatory			7	1	2	10			9	11
Peabody Museum			1	16	8				9	16
Russian Research Center			3	1	8	4	1		12	5
All Other		1	10	12	49	32	5		64	45
Totals		6	21	55	67	117	6	1	94	179
Grand Totals		9	30	116	141	413	10	3	181	541

* This is a tabulation of individuals who held Corporation Research Appointments during the academic years 1951–52 and 1966–67; in some instances this thereby overstates the number of active appointees which might have been counted on any single selected date.

** Includes senior research fellows, special research fellows, visiting fellows, and research assistants.

Table IV

Selected Statistics of Growth Concerning Number of Faculty Members Present (Estimate of Full-Time Equivalent), Enrollments and Ph.D.'s Awarded, Classified by Area of Learning, 1951–52 and 1966–67

Area of Learning	Tenure Faculty: Number Present			All Faculty Except Teaching Fellows: Number Present			Harvard & Radcliffe Undergraduate Concentrators			G.S.A.S. Enrollment			Ph.D.'s Awarded		
	1951–1952	1966–1967	Per Cent Change	1951–1952	1966–1967	Per Cent Change	1951–1952	1966–1967	Per Cent Change	1951–1952	1966–1967	Per Cent Change	1951–1952	1966–1967	Per Cent Change
A. Natural Sciences (incl. D.E.A.P.)	78	103	+32%	123	180	+46%	1111	1121	+ 1%	586	1025	+75%	114	157	+38%
B. Social Sciences	46	62	+35	81	125	+54	2043	2335	+14	649	993	+53	134	147	+10
C. Humanities	66	87	+32	106	164	+55	893	1132	+27	552	896	+62	79	92	+16
Totals	190	252	+33%	310	469	+51%	4047	4588	+13%	1787	2914	+63%	327	396	+21%

The full-time equivalent estimates of tenure and total faculty (not including teaching fellows) were derived from the salary ledgers of the Faculty of Arts and Sciences; a faculty member was counted as present and teaching if he received all of his salary in one or more of the teaching departments and was not that year on leave. To the extent portions of his salary were paid by government contracts, or from other, non-teaching budgets, the estimate of full-time equivalency was reduced. Since a higher proportion of faculty members' salaries was split between teaching and non-teaching budgets in 1966–67 than in 1951–52, the size of the faculty defined by numbers of individual appointees (for example in Appendix Table II) shows faster apparent growth than the size of the faculty as defined in the table above.

Graduate enrollment and Ph.D. award figures are those reported by the Dean of the Graduate School of Arts and Sciences in his annual reports, except that enrollments in Medical Sciences and in Forest Sciences were excluded. During most of the period of comparison, Anthropology was classified as one of the Natural Sciences; it is so classified in the above table, even though it has recently been reclassified into the Social Sciences.

Harvard and Radcliffe undergraduate concentration figures are those reported by the Registrar for sophomores, juniors, and seniors who have elected a field of concentration.

Table V

Number of Theses Currently Being Directed By Professors and Associate Professors, 1967–68

No. of Theses	Professors & Associate Professors	
	Number	Per cent
0	43	17.7
1	17	7.0
2	28	11.5
3	29	11.9
4	21	8.7
5	25	10.3
6–10	52	21.4
11–15	16	6.6
16+	12	4.9
(No Response)	(79)	
Total	243	100.0

SOURCE: Faculty questionnaire.

Table VI

Universities Which Employed Harvard Professors and Associate Professors Immediately Prior to Their First Tenure Appointment at Harvard (Appointments Made between July 1, 1957 and July 1, 1967)

University Employing Professors and Associate Professors Immediately Prior to First Harvard Tenure Appointment	Number of Appointees *	Percentage of Total
Harvard	79	49.7%
University of California	11	6.9
Univeristy of Michigan	6	3.8
University of Chicago	5	3.1
Stanford	5	3.1
Yale	5	3.1
Columbia	4	2.5
M.I.T.	4	2.5
Princeton	4	2.5
All Other	36	22.8
Totals	159	100.0%

* This tabulation concerns appointees in the Faculty of Arts and Sciences, including the Division of Engineering and Applied Physics.

Table VII

Ph.D. Origins of Professors and Associate Professors First Appointed to Tenure at Harvard between July 1, 1957, and July 1, 1967

University at Which Ph.D. was Awarded	Number of Appointees *	Percentage of Total
Harvard	67	44.7%
Princeton	10	6.7
University of Chicago	7	4.7
Yale	7	4.7
University of California	6	4.0
M.I.T.	6	4.0
California Institute of Technology	4	2.7
Johns Hopkins	4	2.7
All Other	39	25.8
Totals	150**	100.0%

* This tabulation concerns appointees in the Faculty of Arts and Sciences, including the Division of Engineering and Applied Physics.

** In addition, nine tenure faculty members were appointed during this period who do not hold the Ph.D. or its degree equivalent.

Table VIII

Ph.D. Origins of Instructors and Assistant Professors in the Faculty of Arts and Sciences (Including Division of Engineering and Applied Physics), 1967–68

University at Which Ph.D. was Awarded	Number of Instructors	Number of Assistant Professors	Total Number of Instructors and Assistant Professors	Percentage of Total
Harvard	50	75	125	57.1%
Princeton	1	8	9	4.1
M.I.T.	2	7	9	4.1
Columbia	3	6	9	4.1
University of California	5	4	9	4.1
Yale	..	6	6	2.7
Cambridge	..	4	4	1.8
University of Michigan	..	4	4	1.8
Stanford	..	4	4	1.8
All Others	15	25	40	18.4
Totals	76	143	219	100.0%

Table IX

Comparison of Number of Harvard Assistant Professors and Term Lecturers in 1966–67 with Annual Average (1957 to 1967) of Faculty of Arts and Sciences Tenure Appointments Made From These Ranks

	Natural Sciences	Social Sciences	Humanities	Total
I. Number of Assistant Professors in *1966–67*	51	50	33	134
II. Number of Term Lecturers in *1966–67*	10	15	11	36
III. Totals Above	61	65	44	170
IV. Annual Average (1957–1967) Number of Tenure Appointments from Above Ranks	3.1	2.3	2.5	7.9
Annual Average Expressed as a Percentage of Above Totals (in Item III)	5.1%	3.5%	5.7%	4.6%

These tabulations, if used to appraise the current chances that a Harvard assistant professor or term lecturer will be selected for a Harvard tenure appointment, appear to understate those chances in at least two significant respects. First, the number of appointees in these non-tenure ranks has more than doubled during the past ten years; if one had compared the ten-year annual average, tenure appointment experience with a ten-year, average number of assistant professors and term lecturers present, the apparent chances of tenure appointment would appear to improve by more than a third. Second, it could be argued that those non-tenure appointees, during their first year or two in either of the two ranks designated, are unlikely to be realistic candidates for serious consideration for tenure at that time. Since roughly two thirds of the assistant professors and term lecturers in 1966–67 were in their first or second year in those ranks, it could be argued that the chances of tenure appointment within a more realistically defined non-tenure candidate group are, on this account, roughly three times better than the above table seems to imply.

Table X

Residence Distribution of Selected Ranks in the Faculty of Arts and Sciences, 1951–52 vs. 1966–67 (Instructors, Assistant Professors, Associate Professors, and Professors)

Community	Number of Faculty Residents 1951–52	Number of Faculty Residents 1966–67	Per cent Change	Percentage of Total Faculty Living in Each Community 1951–52	1966–67
Major Areas of Growth					
Arlington	9	23	+ 156%	15.1%	26.0%
Belmont	40	74	+ 85		
Lexington	4	44	+1000		
Brookline		6	+ 00	0.9	2.9
The Newtons	3	10	+ 233		
Watertown	6	13	+ 117	1.7	2.4
*Cambridge (excl. Harv. Univ.)	174	243	+ 40	49.4	44.8
Wellesley	2	7	+ 250	0.9	2.6
Weston	1	7	+ 600		
Subtotal	239	427	+ 78%	68.0%	78.7%
Other Communities which Gained Faculty Residents					
Acton		3			
Auburndale		2			
Billerica		1			
Bolton		1			
Boston	10	11		2.8%	2.0%
Brighton		1			
*Cambridge (Harvard University residents)	31	35		8.8	6.5
Carlisle		1			
Concord	4	6		1.1	1.1
Dover		1			
Framingham		1			
Manchester		1			
Vineyard Haven		1			
Wayland	1	2			
Westwood	1	2			
Williamstown		1			

Community	Number of Faculty Residents 1951–52	Number of Faculty Residents 1966–67		Percentage of Total Faculty Living in Each Community 1951–52	1966–67
Communities which Lost Faculty Residents or Retained the same Number					
Athol	1				
Bedford	1				
Chestnut Hill	1				
Gloucester	2				
Harvard	1	1			
Hingham	1				
Jamaica Plain	3				
Lincoln	3	1			
Medford	2				
Milton	1	1			
Needham Heights	1	1			
Norwood	1				
Petersham	1	1			
Sharon	1				
Somerville	1				
Stoneham	1				
Sudbury	2	1			
Waltham	3				
Winchester	11	9		3.1%	1.7%
Woburn	1				
Wollaston	1				
Out of State	7	3			
Out of Country	1	3			
No Home Address Listed	5	18		5.1%	4.6%
or					
Not in Directory	13	7			
TOTALS	352	543	+ 54%	100.0%	100.0%
*Combined Total, Cambridge	205	278	+ 36%	58.2%	51.2%

Cambridge Note: In Cambridge, not including Harvard University resident faculty, between 1951–52 and 1966–67 the number of instructors and assistant professors increased from 67 to 105 (57 per cent), while the number of associate professors and professors increased from 107 to 138 (29 per cent). The total number of faculty appointees in those rank groups increased, respectively, 70 per cent and 45 per cent during the same period.

Table XI

Number of Responding Faculty Members Whose Spouses are Employed, 1967–68

	Professors & Associate Professors	Assistant Professors & Instructors	Teaching Fellows	Lecturers	Research Associates & Research Fellows
Number of married faculty	216	102	183	73	84
Per cent married	89.6	76.7	47.7	75.3	80.0
Number married faculty with employed spouses	66	42	136	28	25
Per cent of married faculty with employed spouses	30.6	40.8	73.9	38.4	29.8

SOURCE: Faculty questionnaire.

Table XII

Number of Children of Responding Faculty Members, 1967–68

	Professors & Associate Professors	Assistant Professors & Instructors	Teaching Fellows	Lecturers	Research Associates & Research Fellows
Preschool	25	48	45	26	42
	27*	27*	9*	11*	11*
	52	75	54	37	53
Elementary school through graduate school	369	38	33	118	37
Education completed	106	0	3	6	4
Total number of children	527	113	90	161	94
Per cent of faculty responding in each rank group:	75.8%	61.6%	37.1%	69.7%	35.5%

SOURCE: Faculty questionnaire.
* Attending nursery school.

Table XIII

Number of Responding Faculty Members Who Send Their Children to Public and Private Schools and Colleges, 1967–68

Level of Schooling in which children are currently enrolled		Professors & Associate Professors			Assistant Professors & Instructors			Total		
		Public	Private	% Private	Public	Private	% Private	Public	Private	% Private
Elementary	No. Faculty	52	38	42.2	16	8	33.3	68	46	40.4
	No. Children	93	52	35.8	25	12	32.4	118	64	35.2
Secondary	No. Faculty	34	38	52.7	1	0	0	35	38	52.1
	No. Children	52	46	46.9	1	0	0	53	46	46.5
College or Grad. School	No. Faculty	17	70	80.5	0	0		17	70	80.5
	No. Children	19	107	84.9	0	0		19	107	84.9
Totals	No. Faculty	103	146	58.6	17	8	32.0	120	154	56.2
	No. Children	164	205	55.5	26	12	31.6	190	217	53.3

SOURCE: Faculty questionnaire.

Table XIV

Number of Responding Faculty Members Whose Outside Income (Earned and Unearned) Exceeds a Third of Their Harvard Salary, 1967–68

	Professors & Associate Professors	Assistant Professors & Instructors	Teaching Fellows	Lecturers	Research Associates & Research Fellows
Number whose outside income exceeds 1/3 of Harvard salary	102	34	153	39	9
Per cent of respondents	43.6	26.2	52.2	43.8	12.5
Number whose outside income does *not* exceed 1/3 of Harvard salary	132	96	140	50	63
Per cent of respondents	56.4	73.8	47.8	56.2	87.5
Total respondents	234	130	293	89	72

SOURCE: Faculty questionnaire.

Table XV

Comparison of Harvard with Outside Offers, by Factor Considered In Deciding Whether to Accept the Offers or Not, 1967–68

Factor	Professors and Associate Professors			
	Harvard Superior	Two Institutions About Equal	Other Institution Superior	Did Not Enter Into Consideration
Income from all sources	9.0	19.5	54.9	16.6
Academic freedom	48.8	34.6	0.0	16.6
Provision for Retirement	34.6	33.1	6.3	26.0
Housing (availability, quality)	12.9	21.8	41.1	24.2
Type of community or part of country in which to live	56.8	17.4	17.4	8.4
Teaching load	24.6	39.7	23.8	11.9
Prestige of institution	69.9	19.5	3.0	7.6
General intellectual stimulation	80.3	16.1	1.5	2.1
Caliber of departmental staff	64.6	26.2	5.4	3.8
Caliber of students	75.9	19.5	.8	3.8
Opportunities to train graduate students	58.3	25.8	6.8	9.1
Opportunities for research	35.1	33.6	25.2	6.1
Nature of work involved in position itself	27.1	50.4	8.5	14.0
Professional or civic opportunities	16.3	29.3	5.7	48.7
Career advancement	16.5	28.9	11.6	43.0
Leave and sabbatical privileges	13.3	32.8	25.0	28.9

SOURCE: Faculty questionnaire.